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(54) Title: CHARACTERIZATION OF THE YEAST TRANSCRIPTOME

(57) Abstract: Yeast genes which are differentially expressed during the cell cycle are described. They can be used to study, affect, and monitor the cell cycle of a eukaryotic cell. They can be used to obtain human homologs involved in cell cycle regulation. They can be used to identify antifungal agents and other classes of drugs. They can be formed into arrays on solid supports for interrogation of a cell's transcriptome under various conditions.

|        | 1   | 2   | 3   |
|--------|-----|-----|-----|
| TDH2/3 |     |     |     |
|        | 519 | 561 | 636 |
| TEF1/2 |     |     |     |
|        | 396 | 229 | 379 |
| NORF1  |     |     |     |
|        | 114 | 84  | 182 |
| RNR4   |     |     |     |
|        | 9   | 111 | 7   |
| RNR2   |     |     |     |
|        | 9   | 85  | 9   |
| NORF5  |     |     |     |
|        | 0   | 49  | 0   |

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## **CHARACTERIZATION OF THE YEAST TRANSCRIPTOME**

This application is a continuation-in-part of co-pending application Serial No. 09/012,031 filed January 22, 1998, the disclosure of which is incorporated by reference herein. This invention was made with government support under CA57345 awarded by the National Institutes of Health. The government has certain rights in the invention.

### **TECHNICAL FIELD OF THE INVENTION**

This invention is related to the characterization of the expressed genes of the yeast genome. More particularly, it is related to the identification and use of previously unrecognized genes.

### **BACKGROUND OF THE INVENTION**

It is by now axiomatic that the phenotype of an organism is largely determined by the genes expressed within it. These expressed genes can be represented by a "transcriptome," conveying the identity of each expressed gene and its level of expression for a defined population of cells. Unlike the genome, which is essentially a static entity, the transcriptome can be modulated by both external and internal factors. The transcriptome thereby serves as a dynamic link between an organism's genome and its physical characteristics.

The transcriptome as defined above has not been characterized in any eukaryotic or prokaryotic organism, largely because of technological limitations. However, some general features of gene expression patterns were elucidated two decades ago through



RNA-DNA hybridization measurements (Bishop *et al.*, 1974; Hereford and Rosbash, 1977). In many organisms, it was thus found that at least three classes of transcripts could be identified, with either high, medium, or low levels of expression, and the number of transcripts per cell were estimated (Lewin, 1980). These data of course provided little information about the specific genes that were members of each class. Data on the expression levels of individual genes have accumulated as new genes were discovered. However, in only a few instances have the absolute levels of expression of particular genes been measured and compared to other genes in the same cell type.

Description of any cell's transcriptome would therefore provide new information useful for understanding numerous aspects of cell biology and biochemistry.

#### **SUMMARY OF THE INVENTION**

It is an object of the present invention to provide isolated DNA molecules and methods of using such molecules to affect the cell cycle and identify candidate drugs. These and other objects of the invention are achieved by providing the art with one or more of the embodiments described below.

According to one embodiment of the invention an isolated DNA molecule is provided. It comprises a coding sequence of a yeast gene selected from the group consisting of NORF genes comprising a SAGE tag as shown in SEQ ID NOS:67-811.

According to another embodiment of the invention a method of using NORF genes is provided. The method is for affecting the cell cycle of a cell. The method comprises the step of administering to a cell an isolated DNA molecule comprising a coding sequence of a NORF gene whose expression varies by at least 10% between any two phases of the cell cycle selected from the group consisting of log phase, S phase, and G2/M.

In yet another embodiment of the invention a method for screening candidate antifungal drugs is provided. The method comprises the steps of contacting a test substance with a yeast cell and monitoring expression of a NORF gene whose expression varies by at least 10% between any two phases of the cell cycle selected from the group consisting of log phase, S phase, and G2/M, wherein a test substance

which modifies the expression of the yeast gene is a candidate antifungal drug.

In still another embodiment of the invention a method for identifying human genes which are involved in cell cycle progression is provided. The method comprises the step of contacting human DNA with a probe which comprises at least 14 contiguous nucleotides of a NORF gene whose expression varies by at least 10% between any two phases of the cell cycle selected from the group consisting of log phase, S phase, and G2/M. A human DNA sequence which hybridizes to the probe is identified as a sequence of a candidate human gene which is involved in cell cycle progression.

The present invention provides probes which comprise at least 14 contiguous nucleotides of a NORF gene comprising a SAGE tag as shown in SEQ ID NOS:67-811.

The invention also provides an array of probes on a solid support. At least one probe in the array comprises at least 14 contiguous nucleotides of a NORF gene comprising a SAGE tag as shown in SEQ ID NOS:67-811.

Still another embodiment of the invention is a method of identifying a candidate drug as a member of a class of drugs having a characteristic effect on gene expression in a yeast cell. A yeast cell is contacted with a candidate drug. Expression of at least one NORF gene whose expression is affected by the class of drugs is monitored in the yeast cell. Detection of a difference in expression of the at least one NORF gene relative to expression in the absence of the candidate drug identifies the candidate drug as a member of the class of drugs.

These and other embodiments of the invention which will be apparent to those of skill in the art upon reading the detailed disclosure provided below, make available to the art hitherto unrecognized genes, and information about the expression of genes globally at the organismal level.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

**Figure 1.** Schematic of SAGE Method and Genome Analysis. In applying SAGE to the analysis of yeast gene expression patterns, the 3' most NlaIII site was used to define a unique position in each transcript and to provide a site for ligation of

a linker with a BsmFI site. The type II enzyme BsmFI, which cleaves a defined distance from its non-palindromic recognition site, was then used to generate a 15bp SAGE tag (designated by the black arrows), which includes the NlaIII site. Automated sequencing of concatenated SAGE tags allowed the routine identification of about a thousand tags per 36-lane sequencing gel. Once sequenced, the abundance of each SAGE tag was calculated, and each tag was used to search the entire yeast genome to identify its corresponding gene. The lower panel shows a small region of Chromosome 15. Gray arrows indicate all potential SAGE tags (NlaIII sites) and black arrows indicate 3' most SAGE tags. The total number of tags observed for each potential tag is indicated above (+ strand) or below (- strand) the tag. As expected, the observed SAGE tags were associated with the 3' end of expressed genes.

**Figure 2. Sampling of Yeast Gene Expression.** Analysis of increasing amounts of ascertained tags reveals a plateau in the number of unique expressed genes. Triangles represent genes with known functions, squares represent genes predicted on the basis of sequence information, and circles represent total genes.

**Figure 3. Virtual Rot. (A) Abundance Classes in the Yeast Transcriptome.** The transcript abundance is plotted in reverse order on the abscissa, whereas the fraction of total transcripts with at least that abundance is plotted on the ordinate. The dotted lines identify the three components of the curve, 1, 2, and 3. This is analogous to a Rot curve derived from reassociation kinetics where the product of initial RNA concentration and time is plotted on the abscissa, and the percent of labeled cDNA that hybridizes to excess mRNA is plotted on the ordinate. (B) Comparison of Virtual Rot and Rot Components. Transitions and data from virtual Rot components were calculated from the data in Figure 3A, while data for Rot components were obtained from Hereford and Rosbash, 1977.

**Figure 4. Chromosomal Expression Map for *S. cerevisiae*.** Individual yeast genes were positioned on each chromosome according to their open reading frame (ORF) start coordinates. Abundance levels of tags corresponding to each gene are displayed on the vertical axis, with transcription from the + strand indicated above the abscissa and that from the - strand indicated below. Yellow bands at ends of the expanded chromosome represent telomeric regions that are undertranscribed (see text

for details).

**Figure 5. Northern Blot Analysis of Representative Genes.** TDH2/3, TEF1/2 and NORF1, are expressed relatively equally in all three states (lane 1, G2/M arrested; lane 2, S phase arrested; lane 3, log phase), while RNR4, RNR2, and NORF5 are highly expressed in S-phase arrested cells. The expression level observed by SAGE (number of tags) is noted below each lane and was highly correlated with quantitation of the Northern blot by PhosphorImager analysis ( $r^2=0.97$ ).

### **TABLE LEGENDS**

**Table 1. Highly Expressed Genes.** Tag represents the 10 bp SAGE tag adjacent to the NlaIII site; Gene represents the gene or genes corresponding to a particular tag (multiple genes that match unique tags are from related families, with an average identity of 93%); Locus and Description denote the locus name and functional description of each ORF, respectively; Copies/cell represents the abundance of each transcript in the SAGE library, assuming 15,000 total transcripts per cell and 60,633 ascertained transcripts.

**Table 2. Expression of Putative Coding Sequences.** Table column headings are the same as for Table 1.

**Table 3. Expression of the most abundant NORF genes.** SAGE Tag, Locus, and Copies/cell are the same as for Table 1; Chr and Tag Pos denote the chromosome and position of each tag; ORF Size denotes the size of the ORF corresponding to the indicated tag. In each case, the tag was located within or less than 250 bp 3' of the NORF.

**Table 4. Expression of NORF genes.** SAGE tag and Copies/cell are the same as for Table 1. Chr and Tag Pos denote the chromosome and position of each tag.

**Table 5. Gene expression changes in different cell cycle phases.** L denotes log phase; S denotes synthesis phase; G2/M denotes the mitotic phase. Tag Sequence represents the 10 bp SAGE tag adjacent to the NlaIII site; "ratio L to S" denotes the ratio of expression in log phase to expression in synthesis phase; "ratio S to G2/M" denotes the ratio of expression in synthesis phase to expression in G2/M phase; "ratio G2/M to L" denotes the ratio of expression in G2/M to log phase. #DIV/0! indicates

an increase in expression from 0; a value of 0 indicates a decrease in expression to 0; a value of 1 indicates no change; a value less than 1 indicates a decrease in expression; and a value greater than 1 indicates an increase in expression.

**Table 6.** Intergenic open reading frames that contain or are adjacent to observed SAGE tags. Copies/cell represents abundance of each mRNA transcript as in Table 1. Positive expression level indicates the tag is on the + strand of the chromosome; Negative expression level indicates the tag is on the - strand.

#### **DETAILED DESCRIPTION**

It is a discovery of the present invention that certain hitherto unknown genes (the NORFs) exist and are expressed in yeast. These genes, as well as other previously identified and previously postulated genes, can be used to study, monitor, and affect phases of cell cycle. The present invention identifies which genes are differentially expressed during the cell cycle. Differentially expressed genes can be used as markers of phases of the cell cycle. They can also be used to affect a change in the phase of the cell cycle. In addition, they can be used to screen for drugs which affect the cell cycle, by affecting expression of the genes. Human homologs of these eukaryotic genes are also presumed to exist, and can be identified using the yeast genes as probes or primers to identify the human homologs.

New genes termed NORFs (not previously assigned open reading frames) have been found. They are uniquely identified by their SAGE tags. In addition their entire nucleotide sequences are known and publicly available. In general, these were not previously identified as genes due to their small size. However, they have now been found to be expressed.

Differentially expressed yeast genes are those whose expression varies by a statistically significant difference (to greater than 95% confidence level) within different growth phases, particularly log phase, S phase, and G2/M. Preferably the difference is at least 10%, 25%, 50%, or 100%. In some cases, differentially expressed genes are not expressed at detectable levels in one or more cell cycle phases as determined by SAGE analysis. Genes which have been found to have differential expression characteristics include: NORF N<sup>o</sup> 1, 2, 4, 5, 6, 17, 25, 27, TEF1/TEF2,

EN02, ADH1, ADH2, PGK1, CUP1A/CUP1B, PYK1, YKL056C, YMR116C, YEL033W, YOR182C, YCR013C, ribonucleotide reductase 2 and 4, and YJR085C. Differential expression can be detected by any means known in the art, such as hybridization to specific probes or immunological assays.

5 Isolated DNA molecules according to the invention contain less than a whole chromosome and can be genomic or cDNA, *i.e.*, lacking introns. Isolated DNA molecules can comprise a yeast gene or a coding sequence of a yeast gene involved in cell cycle progression, such as NORF genes which comprise SAGE tags as shown in SEQ ID NOS:67-811. Isolated DNA molecules which comprise yeast genes or  
10 coding sequences of yeast genes comprising SAGE tags as shown in SEQ ID NOS:37-12,203 are also isolated DNA molecules of the invention. Isolated DNA molecules can also consist of a yeast gene or a coding sequence of a yeast gene which comprises a SAGE tag as shown in SEQ ID NOS:37-12,203 or 67-811.

Any technique for obtaining a DNA of known sequence may be used to obtain  
15 isolated DNA molecules of the invention. Preferably they are isolated free of other cellular components such as membrane components, proteins, and lipids. They can be made by a cell and isolated, or synthesized using PCR or an automatic synthesizer. Methods for purifying and isolating DNA are routine and are known in the art.

To administer yeast genes to cells, any DNA delivery techniques known in the  
20 art may be used, without limitation. These include liposomes, transfection, mating, transduction, transformation, viral infection, electroporation. Vectors for particular purposes and characteristics can be selected by the skilled artisan for their known properties. Cells which can be used as gene recipients are yeast and other fungi, mammalian cells, including humans, and bacterial cells.

25 Antifungal drugs can be identified using yeast cells as described herein. Expression of a differentially expressed NORF gene can be monitored by any means known in the art. When a test substance modifies the expression of such a differentially expressed gene, for example by increasing or decreasing its expression, it is a candidate drug for affecting the growth properties of fungi and may be useful  
30 as an antifungal agent. Expression of more than one NORF gene can be monitored. For example, expression of 2, 3, 4, 5, 10, 15, 20, 30, 40, 50, 60, 75, 100, 150, 250,

300, 350, 400, 450, or 500 or more NORF genes can be monitored in single or multiple assays.

Because differentially expressed genes are likely to be involved in cell cycle progression, it is likely that these genes are conserved among species. The differentially expressed NORF genes identified by the present invention can be used to identify homologs in humans and other mammals by contacting DNA from these mammals with a probe which comprises at least 10 contiguous nucleotides of a differentially expressed NORF gene. The DNA can be genomic or cDNA, as is known in the art. Means for identifying homologous genes among different species are well known in the art. Briefly, stringency of hybridization can be reduced so that imperfectly matching sequences hybridize. This can be in the context of *inter alia* Southern blots, Northern blots, colony hybridization or PCR. Any hybridization technique which is known in the art can be used. A DNA sequence which hybridizes to the probe is identified as a sequence of a candidate gene which is involved in cell cycle expression.

Probes according to the present invention are isolated DNA molecules which have at least 10, and preferably at least 12, 14, 16, 18, 20, or 25 contiguous nucleotides of a particular NORF gene or other differentially expressed gene. The probes may or may not be labeled. They may be used, for example, as primers for PCR assays, or for detection of gene expression for Southern or Northern blots or *in situ* hybridization. Preferably the probes are immobilized on a solid support. The solid support can be any surface to which a probe can be attached. Suitable solid supports include, but are not limited to, glass or plastic slides, tissue culture plates, microtiter wells, tubes, or particles such as beads, including but not limited to latex, polystyrene, or glass beads. Any method known in the art can be used to attach the a probe to the solid support, including use of covalent and non-covalent linkages, passive absorption, or pairs of binding moieties attached respectively to the probe and the solid support.

More preferably, probes are present on an array so that multiple probes can simultaneously hybridize to a single biological sample. The probes can be spotted onto the array or synthesized *in situ* on the array. See Lockhart et. al., Nature

**Biotechnology**, Vol. 14, December 1996, "Expression monitoring by hybridization to high-density oligonucleotide arrays." A single array contains at least one NORF probe, but can contain more than 100, 500 or even 1,000 different probes in discrete locations. If desired, one or more NORF probe(s) present on the array can be nucleotide sequences from a NORF gene which is differentially expressed during the cell cycle.

Genes identified by the present invention which are differentially expressed during the cell cycle can also be used to obtain gene expression profiles characteristic of the response of yeast genes of a yeast cell to a particular drug or class of drugs. Classes of drugs of particular interest for which gene expression profiles can be generated include those drugs which affect cell cycle or other cell processes, such as chemotherapeutic agents. If desired, gene expression profiles characteristic of more than one drug of a particular class can be generated and used to make a composite gene expression profile. For example, microtubule poison drugs such as vinblastin, taxol, vincristine, and taxotere can be used to generate gene expression profiles characteristic of microtubule poisons.

To generate a gene expression profile characteristic of a particular drug or class of drugs, a yeast cell is contacted with a particular drug or a member of a particular class of drugs. Expression of at least one yeast gene is monitored, either before and after contacting or in the contacted cell and in another yeast cell which has not been contacted with the drug. Genes which are monitored can be any yeast gene, including NORFS. Preferably, these genes are differentially expressed during the cell cycle. For example, yeast genes can be selected from genes comprising the SAGE tags shown in Tables 3, 4, 5, and 6 (SEQ ID NOS:67-12,203). If desired, genes such as NORF N<sup>a</sup> 1, 2, 4, 5, 6, 17, 25, or 27, TEF1/TEF2, EN02, ADH1, ADH2, PGK1, CUP1A/CUP1B, PYK1, YKL056C, YMR116C, YEL033W, YOR182C, YCR013C, ribonucleotide reductase 2 and 4, and YJR085C, can be used for monitoring alterations in gene expression.

The expression of any number of these genes, such as 1, 2, 3, 4, 5, 10, 15, 20, 25, 30, 40, 50, 60, 75, 100, 150, 250, 500, 1000, 2000, 3000, 4000, 5000, or 5,500 genes, can be measured. It is particularly convenient to monitor expression of the



differentially expressed genes using nucleic acids which are immobilized on a solid support or in an array, such as the gene arrays described above.

Many genes, particularly cell cycle genes, are likely to be conserved between yeast and mammals, including humans. Thus, gene expression profiles characteristic of a drug or class of drugs can be used to predict the effects of candidate drugs on human cells, by identifying the candidate drug as a member of a class of drugs whose characteristic gene expression profile is known. The candidate drugs can be pharmacologic agents already known in the art or can be compounds previously unknown to have any pharmacological activity. The candidate drugs can be naturally occurring or designed in the laboratory. They can be isolated from microorganisms, animals, or plants, and can be produced recombinantly or synthesized by chemical methods known in the art.

The effect of a candidate drug on expression of at least one gene whose expression is affected by the class of drugs is monitored. A gene expression profile obtained using the candidate drug which is similar to a gene expression profile for a particular drug or class of drugs identifies the candidate drug as a member of that class of drugs.

The effect of modifying particular substituents of a known drug or of a candidate drug can be similarly tested. Such methods are useful for determining whether alterations intended, for example, to increase solubility or absorption of a particular drug will have an unintended and possibly deleterious effect on genes which are differentially expressed during the cell cycle.

The above disclosure generally describes the present invention. A more complete understanding can be obtained by reference to the following specific examples which are provided herein for purposes of illustration only, and are not intended to limit the scope of the invention.

## EXAMPLE

### **Summary**

We have analyzed the set of genes expressed from the yeast genome, herein called the transcriptome, using serial analysis of gene expression (SAGE). Analysis

of 60,633 transcripts revealed 4,665 genes, with expression levels ranging from 0.3 to over 200 transcripts per cell. Of these genes, 1,981 had known functions, while 2,684 were previously uncharacterized. Integration of positional information with gene expression data allowed the generation of chromosomal expression maps, identifying physical regions of transcriptional activity, and identified genes that had not been predicted by sequence information alone. These studies provide insight into global patterns of gene expression in yeast and demonstrate the feasibility of genome-wide expression studies in eukaryotes.

## Results

### Characteristics and Rationale of SAGE Approach

Several methods have recently been described for the high throughput evaluation of gene expression (Nguyen *et al.*, 1995; Schena *et al.*, 1995; Velculescu *et al.*, 1995). We used SAGE (Serial Analysis of Gene Expression) because it can provide quantitative gene expression data without the prerequisite of a hybridization probe for each transcript. The SAGE technology is based on two basic principles (Figure 1). First, a short sequence tag (9-11 bp) contains sufficient information to uniquely identify a transcript, provided that it is derived from a defined location within that transcript. Second, many transcript tags can be concatenated into a single molecule and then sequenced, revealing the identity of multiple tags simultaneously. The expression pattern of any population of transcripts can be quantitatively evaluated by determining the abundance of individual tags and identifying the gene corresponding to each tag.

### Genome-wide expression

In order to maximize representation of genes involved in normal growth and cell-cycle progression, SAGE libraries were generated from yeast cells in three states: log phase, S phase arrested and G2/M phase arrested. In total, SAGE tags corresponding to 60,633 total transcripts were identified (including 20,184 from log phase, 20,034 from S phase arrested, and 20,415 from G2/M phase arrested cells). Of these tags, 56,291

tags (93%) precisely matched the yeast genome, 88 tags matched the mitochondrial genome, and 91 tags matched the 2 micron plasmid.

The number of SAGE tags required to define a yeast transcriptome depends on the confidence level desired for detecting low abundance mRNA molecules. Assuming the previously derived estimate of 15,000 mRNA molecules per cell (Hereford and Rosbash, 1977), 20,000 tags would represent a 1.3 fold coverage even for mRNA molecules present at a single copy per cell, and would provide a 72% probability of detecting such transcripts (as determined by Monte Carlo simulations). Analysis of 20,184 tags from log phase cells identified 3,298 unique genes. As an independent confirmation of mRNA copy number per cell, we compared the expression level of *SUP44/RPS4*, one of the few genes whose absolute mRNA levels have been reliably determined by quantitative hybridization experiments (Iyer and Struhl, 1996), with expression levels determined by SAGE. *SUP44/RPS4* was measured by hybridization at 75 +/- 10 copies/cell (Iyer and Struhl, 1996), in good accord with the SAGE data of 63 copies/cell, suggesting that the estimate of 15,000 mRNA molecules per cell was reasonably accurate. Analysis of SAGE tags from S phase arrested and G2/M phase arrested cells revealed similar expression levels for this gene (range 52 to 55 copies/cell), as well as for the vast majority of expressed genes. As less than 1% of the genes were expressed at dramatically different levels among these three states (see below), SAGE tags obtained from all libraries were combined and used to analyze global patterns of gene expression.

Analysis of ascertained tags at increasing increments revealed that the number of unique transcripts plateaued at ~60,000 tags (Figure 2). This suggested that generation of further SAGE tags would yield few additional genes, consistent with the fact that sixty thousand transcripts represented a four-fold redundancy for genes expressed as low as 1 transcript per cell. Likewise, Monte Carlo simulations indicated that analysis of 60,000 tags would identify at least one tag for a given transcript 97% of the time if its expression level was one copy per cell.

The 56,291 tags that precisely matched the yeast genome represented 4,665 different genes. This number is in agreement with the estimate of 3,000 to 4,000 expressed genes obtained by RNA-DNA reassociation kinetics (Hereford and

Rosbash, 1977). These expressed genes included 85% of the genes with characterized functions (1,981 of 2,340), and 76% of the total genes predicted from analysis of the yeast genome (4,665 of 6,121). These numbers are consistent with a relatively complete sampling of the yeast transcriptome given the limited number of physiological states examined and the large number of genes predicted solely on the basis of genomic sequence analysis.

The transcript expression per gene was observed to vary from 0.3 to over 200 copies per cell. Analysis of the distribution of gene expression levels revealed several abundance classes that were similar to those observed in previous studies using reassociation kinetics. A "virtual Rot" of the genes observed by SAGE (Figure 3A) identified three main components of the transcriptome with abundances ranging over three orders of magnitude. A Rot curve derived from RNA-cDNA reassociation kinetics also contained three main components distributed over a similar range of abundances (Hereford and Rosbash, 1977). Although the kinetics of reassociation of a particular class of RNA and cDNA may be affected by numerous experimental variables, there were striking similarities between Rot and virtual Rot analyses (Figure 3B). Because Rot analysis may not detect all transcripts of low abundance (Lewin, 1980), it is not surprising that SAGE revealed both a larger total number of expressed genes and a higher fraction of the transcriptome belonging to the low abundance transcript class.

#### **Integration of Expression Information with the Genomic Map**

The SAGE expression data could be integrated with existing positional information to generate chromosomal expression maps (Figure 4). These maps were generated using the sequence of the yeast genome and the position coordinates of ORFs obtained from the Stanford Yeast Genome Database. Although there were a few genes that were noted to be physically proximal and have similarly high levels of expression, there did not appear to be any clusters of particularly high or low expression on any chromosome. Genes like histones H3 and H4, which are known to have coregulated divergent promoters and are immediately adjacent on chromosome 14 (Smith and Murray, 1983), had very similar expression levels (5 and 6 copies per cell,

respectively). The distribution of transcripts among the chromosomes suggested that overall transcription was evenly dispersed, with total transcript levels being roughly linearly related to chromosome size ( $r^2 = 0.85$ , data not shown). However, regions within 10 kb of telomeres appeared to be uniformly undertranscribed, containing on average 3.2 tags per gene as compared with 12.4 tags per gene for non-telomeric regions (Figure 4). This is consistent with the previously described observations of "telomeric silencing" in yeast (Gottschling *et al.*, 1990). Recent studies have reported telomeric position effects as far as 4 kb from telomere ends (Renauld *et al.*, 1993).

### Gene Expression Patterns

Table 1 lists the 30 most highly expressed genes, all of which are expressed at greater than 60 mRNA copies per cell. As expected, these genes mostly correspond to well characterized enzymes involved in energy metabolism and protein synthesis and were expressed at similar levels in all three growth states (Examples in Figure 5). Some of these genes, including *ENO2* (McAlister and Holland, 1982), *PDC1* (Schmitt *et al.*, 1983), *PGK1* (Chambers *et al.*, 1989), *PYK1* (Nishizawa *et al.*, 1989), and *ADHI* (Denis *et al.*, 1983), are known to be dramatically induced in the glucose-rich growth conditions used in this study. In contrast, glucose repressible genes such as the *GAL1/GAL7/GAL10* cluster (St John and Davis, 1979), and *GAL3* (Bajwa *et al.*, 1988) were observed to be expressed at very low levels (0.3 or fewer copies per cell).

As expected for the yeast strain used in this study, mating type a specific genes, such as the a factor genes (*MFA1*, *MFA2*) (Michaelis and Herskowitz, 1988), and alpha factor receptor (*STE2*) (Burkholder and Hartwell, 1985) were all observed to be expressed at significant levels (range 2 to 10 copies per cell), while mating type alpha specific genes (*MFA1*, *MFA2*, *STE3*) (Hagen *et al.*, 1986; Kurjan and Herskowitz, 1982; Singh *et al.*, 1983) were observed to be expressed at very low levels (<0.3 copies/cell).

Three of the highly expressed genes in Table 1 had not been previously characterized. One contained an ORF with predicted ribosomal function, previously identified only by genomic sequence analysis. Analyses of all SAGE data suggested that there were 2,684 such genes corresponding to uncharacterized ORFs which were

transcribed at detectable levels. The 30 most abundant of these transcripts were observed more than 30 times, corresponding to at least 8 transcripts per cell (Table 2).

The other two highly expressed uncharacterized genes corresponded to ORFs not predicted by analysis of the yeast genome sequence (NORF = Nonannotated ORF).

Analyses of SAGE data suggested that there were at least 160 *NORF* genes transcribed at detectable levels. The 30 most abundant of these transcripts were observed at least 9 times (Table 3 and examples in Figure 5).

Interestingly, one of the *NORF* genes (*NORF5*) was only expressed in S phase arrested cells and corresponded to the transcript whose abundance varied the most in the three states analyzed (> 49 fold, Figure 5). Comparison of S phase arrested cells to the other states also identified greater than 9 fold elevation of the *RNR2* and *RNR4* transcripts (Figure 5). Induction of these ribonucleoside reductase genes is likely to be due to the hydroxyurea treatment used to arrest cells in S phase (Elledge and Davis, 1989). Likewise, comparison of G2/M arrested cells identified elevation of *RBL2* and dynein light chain, both microtubule associated proteins (Archer *et al.*, 1995; Dick *et al.*, 1996). As with the RNR inductions, these elevated levels seem likely to be related to the nocodazole treatment used to arrest cells in the G2/M phase. While there were many relatively small differences between the states (for example, *NORF1*, Figure 5), overall comparison of the three states revealed surprisingly few dramatic differences; there were only 29 transcripts whose abundance varied more than 10 fold among the three different states analyzed (Tables 4 and 5).

A comprehensive analysis for *NORF* genes was performed using the SAGE data. Yeast genome intergenic regions were defined as regions outside annotated ORFs or the 500bp region downstream of annotated ORFs (yeast genome sequence and tables of annotated ORFs were obtained from SGD at <http://genome-www.stanford.edu/Saccharomyces/>). Based on sequence analysis a total of 9524 putative ORFs of 25-99 amino acids were present in the intergenic regions; 510 of these ORFs contain or are adjacent to observed SAGE tags (Table 6). Of the 60,633 SAGE tags analyzed, there were 302 unique SAGE tags either within or adjacent to intergenic ORFs (100bp upstream or 500bp downstream of the ORF) (Table 6). Note that in some cases, more than one *NORF* contains or is adjacent to the

SAGE tag. These tags matched the genome uniquely, were in the correct orientation, and were expressed at levels greater than 0.3 transcript copies per cell.

5 The expression level for each NORF shown in Table 6 corresponds to the number of mRNA transcript copies per cell. If the expression level is positive it means that the tag is on the + strand of the chromosome; if negative, the tag is on the – strand of the chromosome.

### Discussion

10 Analysis of a yeast transcriptome affords a unique view of the RNA components defining cellular life. Comparison of gene expression patterns from altered physiologic states can provide insight into genes that are important in a variety of processes. Comparison of transcriptomes from a variety of physiologic states should provide a minimum set of genes whose expression is required for normal vegetative growth, and another set composed of genes that will be expressed only in response to  
15 specific environmental stimuli, or during specialized processes. For example, recent work has defined a minimal set of 250 genes required for prokaryotic cellular life (Mushegian and Koonin, 1996). Examination of the yeast genome readily identified homologous genes for 196 of these, over 90% of which were observed to be expressed in the SAGE analysis. Detailed analyses of yeast transcriptomes, as well as  
20 transcriptomes from other organisms, should ultimately allow the generation of a minimal set of genes required for eukaryotic life.

Like other genome-wide analyses, SAGE analysis of yeast transcriptomes has several potential limitations. First, a small number of transcripts would be expected to lack an NlaIII site and therefore would not be detected by our analysis. Second, our  
25 analysis was limited to transcripts found at least as frequently as 0.3 copies per cell. Transcripts expressed in only a minute fraction of the cell cycle, or transcripts expressed in only a fraction of the cell population, would not be reliably detected by our analysis. Finally, mRNA sequence data are practically unavailable for yeast, and consequently, some SAGE tags cannot be unambiguously matched to corresponding  
30 genes. Tags which were derived from overlapping genes, or genes which have unusually long 3' untranslated regions may be misassigned. Increased availability of

3' UTR sequences in yeast mRNA molecules should help to resolve the ambiguities.

Despite these potential limitations, it is clear that the analyses described here furnish both global and local pictures of gene expression, precisely defined at the nucleotide level. These data, like the sequence of the yeast genome itself, provide simple, basic information integral to the interpretation of many experiments in the future. The availability of mRNA sequence information from EST sequencing as well as various genome projects, will soon allow definition of transcriptomes from a variety of organisms, including human. The data recorded here suggest that a reasonably complete picture of a human cell transcriptome will require only about 10 - 20 fold more tags than evaluated here, a number well within the practical realm achievable with a small number of automated sequencers. The analysis of global expression patterns in higher eukaryotes is expected, in general, to be similar to those reported here for *S. cerevisiae*. However, the analysis of the transcriptome in different cells and from different individuals should yield a wealth of information regarding gene function in normal, developmental, and disease states.

## Experimental Procedures

### Yeast cell culture

The source of transcripts for all experiments was *S. cerevisiae* strain YPH499 (*MATa ura3-52 lys2-801 ade2-101 leu2-Δ1 his3-Δ200 trp1-Δ63*) (Sikorski and Hieter, 1989). Logarithmically growing cells were obtained by growing yeast cells to early log phase ( $3 \times 10^6$  cells/ml) in YPD (Rose *et al.*, 1990) rich medium (YPD supplemented with 6 mM uracil, 4.8 mM adenine and 24 mM tryptophan) at 30°C. For arrest in the G1/S phase of the cell cycle, hydroxyurea (0.1 M) was added to early log phase cells, and the culture was incubated an additional 3.5 hours at 30°C. For arrest in the G2/M phase of the cell cycle, nocodazole (15 μg/ml) was added to early log phase cells and the culture was incubated for an additional 100 minutes at 30°C. Harvested cells were washed once with water prior to freezing at -70°C. The growth states of the harvested cells were confirmed by microscopic and flow cytometric analyses (Basrai *et al.*, 1996).



**SAGE protocol**

The SAGE method was performed as previously described (Velculescu *et al.*, 1995; Kinzler *et al.*, U.S. Patents 5,866,330 and 5,695,937), with exceptions noted below. PolyA RNA was converted to double-stranded cDNA with a BRL synthesis kit using the manufacturer's protocol except for the inclusion of primer biotin-5'-T<sub>18</sub>-3'. The cDNA was cleaved with NlaIII (Anchoring Enzyme). As NlaIII sites were observed to occur once every 309 base pairs in three arbitrarily chosen yeast chromosomes (1, 5, 10), 95% of yeast transcripts were predicted to be detectable with a NlaIII-based SAGE approach. After capture of the 3' cDNA fragments on streptavidin coated magnetic beads (Dynal), the bound cDNA was divided into two pools, and one of the following linkers containing recognition sites for BsmFI was ligated to each pool: Linker 1, 5'-TTTGGATTGCTGGTGCAGTACAAGCTTAATAGGGACATG-3' (SEQ ID NO:1). 5'-TCCCTATTAAGCCTAGTTGTACTGCACCAGCAAATCC [amino mod. C7]-3' (SEQ ID NO:2); Linker 2, 5'-TTTCTGCTCGAATTCAAGCTTCTAACGATGTACGGGGACATG-3' (SEQ ID NO:3), 5'-TCCCCGTACATCGTTAGAAGCTTGAATTCGAGCAG [amino mod. C7]-3' (SEQ ID NO:4).

As BsmFI (Tagging Enzyme) cleaves 14 bp away from its recognition site, and the NlaIII site overlaps the BsmFI site by 1 bp, a 15 bp SAGE tag was released with BsmFI. SAGE tag overhangs were filled-in with Klenow, and tags from the two pools were combined and ligated to each other. The ligation product was diluted and then amplified with PCR for 28 cycles with 5'-GGATTGCTGGTGCAGTACA-3' (SEQ ID NO:5) and 5'-CTGCTCGAATTCAAGCTTCT-3' (SEQ ID NO:6), as primers. The PCR product was analyzed by polyacrylamide gel electrophoresis (PAGE), and the PCR product containing two tags ligated tail to tail (ditag) was excised. The PCR product was then cleaved with NlaIII, and the band containing the ditags was excised and self-ligated. After ligation, the concatenated products were separated by PAGE and products between 500 bp and 2 kb were excised. These products were cloned into the SphI site of pZero (Invitrogen). Colonies were screened for inserts by PCR with M13 forward and M13 reverse sequences located outside the cloning site as primers.

PCR products from selected clones were sequenced with the TaqFS DyePrimer kits (Perkin Elmer) and analyzed using a 377 ABI automated sequencer (Perkin Elmer), following the manufacturer's protocol. Each successful sequencing reaction identified an average of 26 tags; given a 90% sequencing reaction success rate, this corresponded to an average of about 850 tags per sequencing gel.

#### SAGE data analysis

Sequence files were analyzed by means of the SAGE program group (Velculescu *et al.*, 1995), which identifies the anchoring enzyme site with the proper spacing and extracts the two intervening tags and records them in a database. The 68,691 tags obtained contained 62,965 tags from unique ditags and 5,726 tags from repeated ditags. The latter were counted only once to eliminate potential PCR bias of the quantitation, as described (Velculescu *et al.*, 1995). Of 62,965 tags, 2,332 tags corresponded to linker sequences, and were excluded from further analysis. Of the remaining tags, 4,342 tags could not be assigned, and were likely due to sequencing errors (in the tags or in the yeast genomic sequence). If all of these were due to tag sequencing errors, this corresponds to a sequencing error rate of about 0.7% per base pair (for a 10bp tag), not far from what we would have expected under our automated sequencing conditions. However, some unassigned tags had a much higher than expected frequency of A's as the last five base pairs of the tag (5 of the 52 most abundant unassigned tags), suggesting that these tags were derived from transcripts containing anchoring enzyme sites within several base pairs from their polyA tails. Given the frequency of NlaIII sites in the genome (one in 309 base pairs), approximately 3% of transcripts were predicted to contain NlaIII sites within 10 bp of their polyA tails.

As very sparse data are available for yeast mRNA sequences and efforts to date have not been able to identify a highly conserved polyadenylation signal (Irniger and Braus, 1994; Zaret and Sherman, 1982), we used 14 bp of SAGE tags (i.e. the NlaIII site plus the adjacent 10 bp) to search the yeast genome directly (yeast genome sequence obtained from the Stanford yeast genome ftp site (genome-ftp.stanford.edu) on August 7, 1996). Because only coding regions are annotated in the yeast genome,

and SAGE tags can be derived from 3' untranslated regions of genes, a SAGE tag was considered to correspond to a particular gene if it matched the ORF or the region 500 bp 3' of the ORF (locus names, gene names and ORF chromosomal coordinates were obtained from Stanford yeast genome ftp site, and ORF descriptions were obtained from MIPS www site (<http://www.mips.biochem.mpg.de/>) on August 14, 1996). ORFs were considered genes with known functions if they were associated with a three letter gene name, while ORFs without such designations were considered uncharacterized.

As expected, SAGE tags matched transcribed portions of the genome in a highly non-random fashion, with 88% matching ORFs or their adjacent 3' regions in the correct orientation (chi-squared P value  $<10^{-30}$ ). In instances when more than one tag matched a particular ORF in the correct orientation, the abundance was calculated to be the sum of the matched tags. Tags that matched ORFs in the incorrect orientation were not used in abundance calculations. In instances when a tag matched more than one region of the genome (for example an ORF and non-ORF region) only the matched ORF was considered. In some cases the 15th base of the tag could also be used to resolve ambiguities.

For the identification of NORF genes, only tags were considered that matched portions of the genome that were further than 500 bp 3' of a previously identified ORF and were observed at least two times in the SAGE libraries.

Table 1. Highly expressed genes

| Tag         | Seq. ID No. | Gene               | Locus                           | Copies/cell | Description  |
|-------------|-------------|--------------------|---------------------------------|-------------|--|
| GCTGTTAACG  | 7           | TDH2/TDH3          | YAR000C/YAR182C                 | 425         | glyoxaldehyde-3-phosphate dehydrogenase 2 & 3              |
| AGACAAACTG  | 8           | TEF1/TEF2          | YPR000C/YBR116W                 | 248         | cytosolic elongation factor eEF-1 alpha-A chain            |
| TAQCACTACT  | 9           | ENO2               | YBR174W                         | 228         | 2-phosphoglycerate dehydratase                             |
| GGTTTCGGTT  | 10          | RPLA1, A2, A3, 10E | YOL081C/YOL083W/YOL130W/YL0340W | 207         | sadolic ribosomal protein a1 / P2, beta / L44prime / L10   |
| TTGCCAGTCT  | 11          | PDC1               | YLR044C                         | 207         | pyruvate decarboxylase isozyme 1                           |
| ATCCGAAACG  | 12          | ADH1, ADH2         | YOL086C/YAR000C                 | 182         | alcohol dehydrogenase I / II                               |
| ATCCGCGCTC  | 13          | GPM1               | YNL183C                         | 168         | phosphoglycerate mutase                                    |
| GGTGGCTAGA  | 14          | FBA1               | YNL080C                         | 168         | fructose-bisphosphate aldolase II                          |
| TTAGTTTCTA  | 15          | RPL47A             | YOL184C                         | 143         | ribosomal protein  |
| TCTCTACTGG  | 16          | PGK1               | YCR012W                         | 139         | phosphoglycerate kinase                                    |
| GGTTTGGTT   | 17          | RPLM4              | YOR032W                         | 138         | sadolic ribosomal protein L45                              |
| GGTCCAGCTT  | 18          | SSM1A / SSM1B      | YPL220W / YOL135W               | 128         | ribosomal protein  |
| AATCCAGTTG  | 19          | RPL5A / RPL5B      | YAL16W / YFR031AC               | 102         | ribosomal protein  |
| TTGGTTCACT  | 20          |                    |                                 | 94          | nonannotated ORF   |
| AACAGAACGAG | 21          | RPL18A / RPL18B    | YPR100C / YGR085C               | 83          | ribosomal protein  |
| CTGCTCTGGG  | 22          | CLP1A / CLP1B      | YHR033C / YHR035C               | 75          | ribosomal protein  |
| GCAATACTAC  | 23          |                    | YOR028W / YMR230W               | 73          | metallochaperonin  |
| GCTCTCCGCC  | 24          |                    | NOB2                            | 73          | ribosomal protein S10 / similarly to ribosomal protein S10 |
| AAAGACAGAG  | 25          | RPS31A             | YGR027C                         | 72          | nonannotated ORF   |
| TGTCGTGGTG  | 26          | RPL2A / RPL2B      | YBR031W / YDR012W               | 70          | ribosomal protein  |
| CCAAGGGTAT  | 27          | RPS28A             | YGR118W                         | 69          | ribosomal protein  |
| TCTCCAGGAG  | 28          | RPL35B             | YOR000C                         | 69          | ribosomal protein  |
| GTTTTCTTT   | 29          | PYK1               | YAL038W                         | 69          | pyruvate kinase  |
| ATCACTGGTG  | 30          | RPL6A / RPL6B      | YOL147C / YNL087W               | 68          | ribosomal protein L9                                       |
| ATGAAGGTTT  | 31          | RPL27A             | YHR010W                         | 68          | ribosomal protein L27                                      |
| GTAGAGCGCG  | 32          | RPS21              | YOL040C                         | 67          | ribosomal protein  |
| GGTACTGATG  | 33          | RPL43A             | YDL075W                         | 67          | ribosomal protein L31                                      |
| CCAGATTGT   | 34          | NAB1A / NAB1B      | YGR214W / YLR048W               | 67          | 40S ribosomal protein p40 homolog A                        |
| GTGCGGTCCA  | 35          | URP1A              | YBR191W                         | 62          | ribosomal protein L21                                      |
| CAAAACCCAA  | 36          | RPS18EB            | YAL026C                         | 60          | ribosomal protein S18                                      |

Table 2. Putative coding sequences

| SAGE Tag    | Seq. ID No. | Locus    | Copies/Cell | Description   |
|-------------|-------------|----------|-------------|---|
| TTGAAGTACC  | 37          | YKL056C  | 58          | strong similarity to human Ige-dependent histamine-releasing factor (21K tumor protein) |
| TTGGGGTCAC  | 38          | YDR278C  | 56          | strong similarity to Hordeum vulgare bit101 protein                                     |
| CCAGATATGA  | 39          | YIL083C  | 41          | hypothetical protein  |
| TTTAAATGG   | 40          | YMR116C  | 38          | similarity to N.crassa CPC2 protein   |
| GGTGTGCTTG  | 41          | YBR078W  | 34          | strong similarity to sporulation specific Sps2p   |
| TACTCTTCGC  | 42          | YEL033W  | 33          | hypothetical protein  |
| TGTAATTAA   | 43          | YOR182C  | 26          | homology to human ubiquitin-like protein/ribosomal protein S30                          |
| GGAGATCTTG  | 44          | YCR013C  | 24          | weak similarity to M.lepra B1498_F1_41 protein  |
| TCAAGAAAGTT | 45          | YER056AC | 20          | strong similarity to ribosomal protein L34  |
| AAAACTTGG   | 46          | YIL051C  | 18          | strong similarity to YER057C  |
| AAAGTTGAACA | 47          | YPR043W  | 17          | ribosomal protein L37   |
| GGGTGCGGGT  | 48          | YDR032C  | 16          | strong similarity to YCR004C and S.pombe obr1   |
| TGACTCTTGG  | 49          | YLR390W  | 14          | hypothetical protein  |
| GGTCAATGGC  | 50          | YJR105W  | 11          | hypothetical protein  |
| TAAGAATTCT  | 51          | YJL158C  | 11          | member of the Pir1p/Hsp150p/Pir3p family  |
| TCAATTATGT  | 52          | YDR033W  | 11          | strong similarity to putative heat shock protein YRO2                                   |
| ACGGCCAAAGA | 53          | YBR162C  | 10          | similarity to YJL171p   |
| TTGGGCTAGT  | 54          | YJL171C  | 10          | similarity to YBR162C   |
| CCTTCACAGT  | 55          | YJR085C  | 10          | hypothetical protein  |
| CCTCTCTTGT  | 56          | YOR310C  | 10          | homology to SIK1 protein  |
| CCCCAAACTT  | 57          | YEL018W  | 9           | weak similarity to Rad50p   |
| AACAAGTACT  | 58          | YGL037C  | 9           | similarity to YFL004w   |
| AACAATATAA  | 59          | YER072W  | 8           | homology to human IMP dehydrogenase I   |
| CAAAAAGACCG | 60          | YML056C  | 8           | homology to human ubiquitin-like protein/ribosomal protein S30                          |
| GGTTTTTGAT  | 61          | YOR182C  | 8           | hypothetical protein  |
| CAATCCATT   | 62          | YBR108W  | 8           | putative alcohol-dehydrogenase  |
| TTTTGGGCT   | 63          | YMR318C  | 8           | similarity to nuclear RNA binding proteins  |
| AACTGTCCAT  | 64          | YDR0429C | 8           | strong similarity to YGL002w  |
| CCAAGGTTAA  | 65          | YAR002AC | 8           | putative resistance protein   |
| GGTTTTTGAA  | 66          | YOR273C  | 8           |   |

Table 3. NORF genes

| SAGE Tag    | Seq. ID No. | Locus  | Copies/Cell | Chr | Tag Pos | ORF Size (bp) |
|-------------|-------------|--------|-------------|-----|---------|---------------|
| TTGCTTCACT  | 67          | NORF1  | 94          | 4   | 1489450 | 198           |
| GGCTCTCCCC  | 68          | NORF2  | 73          | 16  | 75633   | 243           |
| TGTACGCAIT  | 69          | NORF3  | 16          | 15  | 301251  | 189           |
| TTTTATTATC  | 70          | NORF4  | 15          | 6   | 223182  | 177           |
| CTTCTCTTTT  | 71          | NORF5  | 12          | 13  | 158973  | 204           |
| TTTCTATAIA  | 72          | NORF6  | 11          | 13  | 511754  | 252           |
| TCTAGTCGCC  | 73          | NORF7  | 10          | 12  | 669859  | 182           |
| ATCGTTTAT   | 74          | NORF8  | 8           | 15  | 877140  | 174           |
| GGCCCAATGGT | 75          | NORF9  | 8           | 4   | 1202289 | 267           |
| ACCCTGTCAT  | 76          | NORF10 | 7           | 2   | 418633  | 255           |
| AAAAGATCAT  | 77          | NORF11 | 7           | 2   | 1489453 | 87            |
| CAGAAAATGG  | 78          | NORF12 | 6           | 8   | 115655  | 279           |
| TGACATTCTT  | 79          | NORF13 | 6           | 16  | 883669  | 183           |
| TAGACAICTA  | 80          | NORF14 | 6           | 2   | 491117  | 141           |
| TGCCCTGGCC  | 81          | NORF15 | 5           | 5   | 166452  | 216           |
| GGTTTGGCG   | 82          | NORF16 | 4           | 3   | 24169   | 291           |
| CCATACAGGT  | 83          | NORF17 | 4           | 12  | 673851  | 114           |
| CCAAATCAAA  | 84          | NORF18 | 3           | 4   | 229494  | 258           |
| AAGCGGTACT  | 85          | NORF19 | 3           | 9   | 47889   | 399           |
| AACGCTTTTC  | 86          | NORF20 | 3           | 2   | 351456  | 198           |
| GAGGATAGAG  | 87          | NORF21 | 3           | 2   | 356201  | 240           |
| CAATGAACCG  | 88          | NORF22 | 3           | 16  | 75541   | 243           |
| TCTTTATATA  | 89          | NORF23 | 3           | 1   | 7363    | 90            |
| CGCCTCCAGT  | 90          | NORF24 | 3           | 7   | 485774  | 108           |
| TACGTAAGTT  | 91          | NORF25 | 3           | 10  | 156139  | 81            |
| GAITTAACCT  | 92          | NORF26 | 3           | 15  | 254749  | 93            |
| GCGCCCTCAA  | 93          | NORF27 | 2           | 5   | 42622   | 222           |
| CAATGGCCCA  | 94          | NORF28 | 2           | 13  | 511751  | 78            |
| TTGAGGAACG  | 95          | NORF29 | 2           | 3   | 154681  | 264           |
| GCTAAGAACC  | 96          | NORF30 | 2           | 4   | 302807  | 204           |

**Additional NORFs**

| <b>SAGE Tag</b> | <b>Seq. ID N .</b> | <b>Chr</b> | <b>Tag P</b> | <b>Copies/cell</b> |
|-----------------|--------------------|------------|--------------|--------------------|
| GGCGCAATTT      | 97                 | 4          | 1108395      | 2                  |
| TAAGTGATGA      | 98                 | 7          | 593382       | 2                  |
| TTGTTGAATT      | 99                 | 10         | 608373       | 2                  |
| GAAGCAGTAA      | 100                | 3          | 155607       | 2                  |
| ACATATGTTA      | 101                | 4          | 916112       | 2                  |
| CCCTACACGG      | 102                | 6          | 223289       | 2                  |
| GTAATTGGAC      | 103                | 10         | 392099       | 2                  |
| ATCAGACAAA      | 104                | 14         | 687272       | 2                  |
| TTATGAAAGA      | 105                | 15         | 81263        | 2                  |
| ATTCGTTCTA      | 106                | 15         | 841970       | 2                  |
| AGCAGGAGTT      | 107                | 16         | 188350       | 2                  |
| TTCTATTAGG      | 108                | 2          | 418749       | 2                  |
| TGGATTTTCAG     | 109                | 4          | 1224930      | 2                  |
| CAGATATAAT      | 110                | 5          | 52488        | 2                  |
| CTGTTTTGGG      | 111                | 11         | 374781       | 2                  |
| CATTTTTAGT      | 112                | 11         | 508212       | 2                  |
| TTGAAAAGAT      | 113                | 13         | 104160       | 2                  |
| TAAGCCCATC      | 114                | 13         | 251273       | 2                  |
| AGCGTCCTCA      | 115                | 15         | 832420       | 2                  |
| TTTAGTTAAT      | 116                | 2          | 477623       | 2                  |
| ATGGTAGCCA      | 117                | 3          | 56961        | 2                  |
| AATTAGACTA      | 118                | 3          | 162589       | 2                  |
| AGTGACTCTT      | 119                | 4          | 1490879      | 2                  |
| GGACTATAAG      | 120                | 5          | 251266       | 2                  |
| ACTTTTTTCAG     | 121                | 10         | 159213       | 2                  |
| GTCATATAGT      | 122                | 13         | 158765       | 2                  |
| CAACAAAGTG      | 123                | 13         | 171166       | 2                  |
| GTGGGAAAGG      | 124                | 13         | 804600       | 2                  |
| TACTTTATAT      | 125                | 16         | 366449       | 2                  |
| AATACCAGCG      | 126                | 3          | 175540       | 1                  |
| GCCTTGTATA      | 127                | 4          | 372624       | 1                  |
| GGTACATTCA      | 128                | 5          | 67152        | 1                  |
| GATTTCTCTG      | 129                | 5          | 187462       | 1                  |
| TAGTTGCTCC      | 130                | 7          | 317108       | 1                  |
| GTAAGAAATC      | 131                | 7          | 836202       | 1                  |
| CTTGGGCTAT      | 132                | 8          | 107992       | 1                  |
| AAATGGTGAT      | 133                | 11         | 558686       | 1                  |
| ATCATTTGGG      | 134                | 12         | 199358       | 1                  |
| CTGAACCTTA      | 135                | 12         | 283720       | 1                  |
| CCAGAAGGAG      | 136                | 13         | 652873       | 1                  |
| CCGGTTACTA      | 137                | 15         | 803663       | 1                  |
| CGATGAGAAG      | 138                | 15         | 1004369      | 1                  |
| AAACCGTCCC      | 139                | 16         | 199141       | 1                  |
| TCATTCATAC      | 140                | 2          | 164728       | 1                  |
| TATCTTTTIG      | 141                | 4          | 169784       | 1                  |
| TTAGAATAAT      | 142                | 4          | 603508       | 1                  |
| GTACGCTGTG      | 143                | 5          | 118089       | 1                  |
| TATATTAATT      | 144                | 6          | 64228        | 1                  |

|             |     |    |         |     |
|-------------|-----|----|---------|-----|
| GTTCCTGCCT  | 145 | 7  | 939579  | 1   |
| ATATAGCTGC  | 146 | 10 | 181144  | 1   |
| CCAAAAAAAAA | 147 | 11 | 91785   | 1   |
| GAAGTCCACA  | 148 | 11 | 94125   | 1   |
| CCTTCACTGC  | 149 | 11 | 374172  | 1   |
| CACATCATAA  | 150 | 11 | 625896  | 1   |
| GAAGTATTGA  | 151 | 12 | 603999  | 1   |
| TGCGCGTATA  | 152 | 13 | 206410  | 1   |
| GGGTAGTACT  | 153 | 13 | 671730  | 1   |
| TAGTTTTGTC  | 154 | 15 | 33475   | 1   |
| CAATTCCTAC  | 155 | 1  | 172182  | 0.8 |
| TTTGATTTGA  | 156 | 2  | 46431   | 0.8 |
| GGCTCTGGTT  | 157 | 2  | 414510  | 0.8 |
| CAGAAATAGC  | 158 | 2  | 565130  | 0.8 |
| CTGTTATTTT  | 159 | 2  | 616054  | 0.8 |
| CGAAGTCAAA  | 160 | 2  | 680605  | 0.8 |
| CTCTAGATAA  | 161 | 3  | 171584  | 0.8 |
| AGTCAAAATG  | 162 | 4  | 192750  | 0.8 |
| GCGAGTTTAG  | 163 | 4  | 691301  | 0.8 |
| GCTCCAATAG  | 164 | 4  | 1131020 | 0.8 |
| TTTATTTGAG  | 165 | 4  | 1237501 | 0.8 |
| GTTATATTGA  | 166 | 4  | 1401803 | 0.8 |
| TGGGTTGAAG  | 167 | 5  | 251266  | 0.8 |
| ATTTTATTTG  | 168 | 5  | 447729  | 0.8 |
| ATCATAAAAA  | 169 | 5  | 548612  | 0.8 |
| TTATATAAAA  | 170 | 6  | 223182  | 0.8 |
| CTACTTCTGC  | 171 | 8  | 34853   | 0.8 |
| ATAAGACAGT  | 172 | 10 | 227802  | 0.8 |
| TTCATAAGTT  | 173 | 10 | 471894  | 0.8 |
| TAAATCTGAG  | 174 | 11 | 145617  | 0.8 |
| CTGGTAGAAA  | 175 | 11 | 151174  | 0.8 |
| CACGTACACA  | 176 | 11 | 403208  | 0.8 |
| CCAAGATCAA  | 177 | 11 | 425882  | 0.8 |
| AGCTTGTTCC  | 178 | 12 | 234966  | 0.8 |
| CACATTCGTT  | 179 | 12 | 759953  | 0.8 |
| CTTACATATA  | 180 | 12 | 789781  | 0.8 |
| TCTATAGCAA  | 181 | 13 | 228936  | 0.8 |
| CCTTTCTGAA  | 182 | 13 | 297985  | 0.8 |
| CCTTTAGAAT  | 183 | 13 | 777999  | 0.8 |
| AATTAACACC  | 184 | 13 | 842122  | 0.8 |
| GCGCAGGGGC  | 185 | 14 | 440984  | 0.8 |
| TGTTTATAAA  | 186 | 14 | 661710  | 0.8 |
| AAAAGTCATT  | 187 | 15 | 32081   | 0.8 |
| TTCGTAAACT  | 188 | 15 | 680625  | 0.8 |
| TTTTTGGAGT  | 189 | 15 | 888343  | 0.8 |
| AGGCATCTTG  | 190 | 16 | 250284  | 0.8 |
| AAATCAAAAC  | 191 | 16 | 453890  | 0.8 |
| AATTGACGAA  | 192 | 16 | 560169  | 0.8 |
| TTGATGATTT  | 193 | 16 | 582360  | 0.8 |
| CCTGTTTTTG  | 194 | 16 | 643476  | 0.8 |
| TTTTTAAAAA  | 195 | 1  | 101436  | 0.5 |



|            |     |   |         |     |
|------------|-----|---|---------|-----|
| AAGTTTGATC | 196 | 1 | 199848  | 0.5 |
| AGCACCTATG | 197 | 2 | 46913   | 0.5 |
| TGATTTATCC | 198 | 2 | 418948  | 0.5 |
| ACTGCATCTG | 199 | 2 | 680880  | 0.5 |
| CAAGTTAGGA | 200 | 2 | 744770  | 0.5 |
| ATACCCAATT | 201 | 3 | 29939   | 0.5 |
| AACTTTGTAT | 202 | 3 | 30056   | 0.5 |
| GCGGCGGGTG | 203 | 3 | 41645   | 0.5 |
| AAAATTGTTT | 204 | 3 | 57108   | 0.5 |
| TCAAGTACTC | 205 | 3 | 157855  | 0.5 |
| AACTGTATGC | 206 | 3 | 223882  | 0.5 |
| CTATCGGCCA | 207 | 3 | 278840  | 0.5 |
| ACAAGCCCAA | 208 | 3 | 289917  | 0.5 |
| GTACAGGGCT | 209 | 4 | 93873   | 0.5 |
| AAGATCATCG | 210 | 4 | 254851  | 0.5 |
| GAACCTCTGG | 211 | 4 | 340891  | 0.5 |
| GAACGAGAAG | 212 | 4 | 371850  | 0.5 |
| TTTTTAATAC | 213 | 4 | 372058  | 0.5 |
| TCTCCAGTTG | 214 | 4 | 381712  | 0.5 |
| AATACGTTAC | 215 | 4 | 471791  | 0.5 |
| ACGATTGGCT | 216 | 4 | 509158  | 0.5 |
| TGTTTATAAG | 217 | 4 | 521709  | 0.5 |
| CGTTTTCGTC | 218 | 4 | 538839  | 0.5 |
| TCGAACCTCT | 219 | 4 | 578702  | 0.5 |
| TCCACACACA | 220 | 4 | 930972  | 0.5 |
| CCGTGCGTGC | 221 | 4 | 1324367 | 0.5 |
| TTTCTTCAAC | 222 | 5 | 116099  | 0.5 |
| CCAAGTCTCG | 223 | 5 | 159320  | 0.5 |
| AGAGCGAATT | 224 | 5 | 207517  | 0.5 |
| TGTAGATTAT | 225 | 5 | 280465  | 0.5 |
| AAAAGTAGTT | 226 | 5 | 286387  | 0.5 |
| ACTTGGTATG | 227 | 5 | 422942  | 0.5 |
| TTAATGTTAT | 228 | 5 | 544523  | 0.5 |
| TACACGCGCG | 229 | 5 | 544555  | 0.5 |
| GGTCACTCCT | 230 | 6 | 62983   | 0.5 |
| AAGTGATGAA | 231 | 6 | 76141   | 0.5 |
| TTTATCTTGT | 232 | 6 | 130327  | 0.5 |
| AGTGATTGTT | 233 | 6 | 256223  | 0.5 |
| GCTTTGTTGT | 234 | 7 | 72577   | 0.5 |
| TCATTGATTC | 235 | 7 | 110590  | 0.5 |
| TTCAACGGAA | 236 | 7 | 323655  | 0.5 |
| ACTATTCTGT | 237 | 7 | 423957  | 0.5 |
| GGGCCAACCC | 238 | 7 | 433787  | 0.5 |
| AAAATATCTT | 239 | 7 | 559397  | 0.5 |
| TAGTAGTAAC | 240 | 7 | 622201  | 0.5 |
| AAGCGCACAA | 241 | 7 | 735909  | 0.5 |
| TCGCTGTTTT | 242 | 7 | 800300  | 0.5 |
| TGTATTTTGT | 243 | 7 | 836202  | 0.5 |
| CTAAACAAAG | 244 | 7 | 836587  | 0.5 |
| TAGGAAGAAA | 245 | 7 | 905046  | 0.5 |
| GGAAAAATTA | 246 | 7 | 958839  | 0.5 |

|            |     |    |         |     |
|------------|-----|----|---------|-----|
| TTTGGATAGT | 247 | 7  | 974754  | 0.5 |
| CGTTTGTGTA | 248 | 8  | 202655  | 0.5 |
| AGAAAAAAAC | 249 | 8  | 386651  | 0.5 |
| TAAAGTCCAG | 250 | 8  | 518998  | 0.5 |
| TAAGCAGATT | 251 | 8  | 529129  | 0.5 |
| ATGAGCATTT | 252 | 9  | 97114   | 0.5 |
| AGGTGCAAAA | 253 | 9  | 229077  | 0.5 |
| TAACAAAGAG | 254 | 10 | 628227  | 0.5 |
| CAATTGGCAA | 255 | 10 | 721781  | 0.5 |
| ACTCCCTGTA | 256 | 11 | 93528   | 0.5 |
| CTCTATTGAT | 257 | 11 | 144281  | 0.5 |
| GCTTTCCTTT | 258 | 11 | 146665  | 0.5 |
| ACCGCAAAGA | 259 | 11 | 231872  | 0.5 |
| CTTGTTCAAA | 260 | 12 | 230972  | 0.5 |
| AATGTGCTGT | 261 | 12 | 320426  | 0.5 |
| GCAGATAGCG | 262 | 12 | 341324  | 0.5 |
| TCTGACTTAG | 263 | 12 | 368780  | 0.5 |
| CCCGGATGTT | 264 | 12 | 433912  | 0.5 |
| GTAACGATTG | 265 | 12 | 449917  | 0.5 |
| GAATAACGAA | 266 | 12 | 673851  | 0.5 |
| ACTGCTATTT | 267 | 12 | 712476  | 0.5 |
| GTTCTCTAGC | 268 | 12 | 712712  | 0.5 |
| CATCACCATC | 269 | 12 | 794710  | 0.5 |
| TTGCACTTCT | 270 | 12 | 806833  | 0.5 |
| ACTGTTTATG | 271 | 12 | 867350  | 0.5 |
| TTGCTATATA | 272 | 12 | 1017911 | 0.5 |
| TACATTCTAA | 273 | 13 | 95707   | 0.5 |
| CTCTTAGTTG | 274 | 13 | 158970  | 0.5 |
| ACGAACACTT | 275 | 13 | 278341  | 0.5 |
| TGCGCAAGTC | 276 | 13 | 283795  | 0.5 |
| TTTTTCTTAA | 277 | 13 | 363037  | 0.5 |
| CAAATGCATT | 278 | 13 | 390802  | 0.5 |
| CAAATTGTGT | 279 | 13 | 395599  | 0.5 |
| GCAATACTAT | 280 | 13 | 828521  | 0.5 |
| AGTGACGATG | 281 | 14 | 60143   | 0.5 |
| TACTGGTTTA | 282 | 14 | 118854  | 0.5 |
| GTTTGACCTA | 283 | 14 | 335512  | 0.5 |
| AGCGTTTGAT | 284 | 14 | 478481  | 0.5 |
| CTCTGTTGCG | 285 | 14 | 728251  | 0.5 |
| AAATTCAAAA | 286 | 15 | 35952   | 0.5 |
| TTTGCTTGGT | 287 | 15 | 242742  | 0.5 |
| AGTTTTCTG  | 288 | 15 | 304813  | 0.5 |
| TTTAAAGATA | 289 | 15 | 331453  | 0.5 |
| AAGGAGACAC | 290 | 15 | 448624  | 0.5 |
| CTATATATCA | 291 | 15 | 544530  | 0.5 |
| GATGGAATAG | 292 | 15 | 571210  | 0.5 |
| TCGAGTCGAA | 293 | 15 | 758202  | 0.5 |
| AAAAAAGAAA | 294 | 15 | 882567  | 0.5 |
| TTTCCAGAAT | 295 | 15 | 969884  | 0.5 |
| TGGACAATGT | 296 | 15 | 970607  | 0.5 |
| GGAATTAAGA | 297 | 15 | 979894  | 0.5 |

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|            |     |    |        |     |
|------------|-----|----|--------|-----|
| ACTATATGTT | 298 | 16 | 582230 | 0.5 |
| GATATATCAT | 289 | 16 | 589647 | 0.5 |
| AGAATTGATT | 300 | 16 | 744406 | 0.5 |
| CACTGTCTCC | 301 | 16 | 824649 | 0.5 |

Table 5. Gene expression changes in different cell cycle phases

|     |     |     |            |     |     |     |     |
|-----|-----|-----|------------|-----|-----|-----|-----|
| 636 | 561 | 519 | GGTGTAAACG | 812 | 0.9 | 0.9 | 0.8 |
| 379 | 229 | 396 | AGACAAACTG | 813 | 0.6 | 1.7 | 1.0 |
| 389 | 268 | 269 | TACCACTCCT | 814 | 0.7 | 1.0 | 0.7 |
| 269 | 245 | 321 | GGTTTCGGTT | 815 | 0.9 | 1.3 | 1.2 |
| 270 | 318 | 247 | TTGCCAGTCT | 816 | 1.2 | 0.8 | 0.9 |
| 350 | 260 | 124 | GGTGAAAACG | 817 | 0.7 | 0.5 | 0.4 |
| 228 | 233 | 219 | ATGCCCGCTC | 818 | 1.0 | 0.9 | 1.0 |
| 247 | 198 | 224 | GGTGCTAAGA | 819 | 0.8 | 1.1 | 0.9 |
| 205 | 247 | 127 | TTAGTTTCTA | 820 | 1.2 | 0.5 | 0.6 |
| 223 | 221 | 119 | TCTCTACTGG | 821 | 1.0 | 0.5 | 0.5 |
| 169 | 139 | 249 | GGTTTGGTT  | 822 | 0.8 | 1.8 | 1.5 |
| 153 | 112 | 253 | GGTCCAGCTT | 823 | 0.7 | 2.3 | 1.7 |
| 145 | 118 | 151 | AATCCAGTTG | 824 | 0.8 | 1.3 | 1.0 |
| 182 | 84  | 114 | TTCGTTCACT | 825 | 0.5 | 1.4 | 0.6 |
| 83  | 70  | 182 | AACAGACCAG | 826 | 0.8 | 2.6 | 2.2 |
| 123 | 43  | 139 | CTGCTCTGGG | 827 | 0.3 | 3.2 | 1.1 |
| 72  | 76  | 148 | GCAATACTAC | 828 | 1.1 | 1.9 | 2.1 |
| 69  | 111 | 114 | GCTCTCCCCC | 829 | 1.6 | 1.0 | 1.7 |
| 99  | 74  | 119 | AAAGACAGAG | 830 | 0.7 | 1.6 | 1.2 |
| 121 | 74  | 89  | TGTCGTGGTG | 831 | 0.6 | 1.2 | 0.7 |
| 67  | 77  | 136 | CCAAGGGTAT | 832 | 1.1 | 1.8 | 2.0 |
| 40  | 110 | 130 | TCGCCAGAAG | 833 | 2.8 | 1.2 | 3.3 |
| 137 | 78  | 63  | GTTTTCTTT  | 834 | 0.6 | 0.8 | 0.5 |
| 72  | 51  | 152 | ATCACTGGTG | 835 | 0.7 | 3.0 | 2.1 |
| 42  | 89  | 142 | ATGAAGGTTT | 836 | 2.1 | 1.6 | 3.4 |
| 103 | 70  | 99  | GTAGAGCCCG | 837 | 0.7 | 1.4 | 1.0 |
| 70  | 58  | 143 | GGTACTGATG | 838 | 0.8 | 2.5 | 2.0 |

Table 5, cont.

|     |     |     |             |     |     |     |     |
|-----|-----|-----|-------------|-----|-----|-----|-----|
| 71  | 95  | 104 | CCAGATTGT   | 839 | 1.3 | 1.1 | 1.5 |
| 40  | 75  | 138 | GCTGCTCAA   | 840 | 1.9 | 1.8 | 3.5 |
| 64  | 39  | 146 | GTGCCGTCCA  | 841 | 0.6 | 3.7 | 2.3 |
| 69  | 67  | 105 | CAAAACCCAA  | 842 | 1.0 | 1.6 | 1.5 |
| 56  | 83  | 96  | CCATCTTTAC  | 843 | 1.5 | 1.2 | 1.7 |
| 119 | 35  | 79  | TTGAACACC   | 844 | 0.3 | 2.3 | 0.7 |
| 85  | 71  | 74  | AACATCAAGC  | 845 | 0.8 | 1.0 | 0.9 |
| 72  | 51  | 106 | GAACACTTCT  | 846 | 0.7 | 2.1 | 1.5 |
| 71  | 69  | 87  | TTCGGGTCAC  | 847 | 1.0 | 1.3 | 1.2 |
| 48  | 85  | 93  | TCGCTGTTT   | 848 | 1.8 | 1.1 | 1.9 |
| 82  | 110 | 26  | ACATCTCATA  | 849 | 1.3 | 0.2 | 0.3 |
| 68  | 71  | 78  | GTCAGATTGG  | 850 | 1.0 | 1.1 | 1.1 |
| 81  | 38  | 84  | AAGGTCAAGA  | 851 | 0.5 | 2.2 | 1.0 |
| 54  | 80  | 66  | TAAGTGGACT  | 852 | 1.5 | 0.8 | 1.2 |
| 42  | 56  | 100 | TCTTGAGAA   | 853 | 1.3 | 1.8 | 2.4 |
| 80  | 39  | 76  | CTCTACTGTC  | 854 | 0.5 | 1.9 | 1.0 |
| 42  | 50  | 97  | CTCAATCCAA  | 855 | 1.2 | 1.9 | 2.3 |
| 107 | 41  | 37  | TCTTCTGTT   | 856 | 0.4 | 0.9 | 0.3 |
| 83  | 64  | 30  | TTGCTTTGG   | 857 | 0.8 | 0.5 | 0.4 |
| 74  | 43  | 53  | CCACGGTCT   | 858 | 0.6 | 1.2 | 0.7 |
| 41  | 45  | 79  | CCAGATAAGA  | 859 | 1.1 | 1.8 | 1.9 |
| 151 | 8   | 4   | GTTTCAACGG  | 860 | 0.1 | 0.5 | 0.0 |
| 52  | 44  | 66  | GACGTCATCA  | 861 | 0.8 | 1.5 | 1.3 |
| 42  | 24  | 93  | ACAAGATCTT  | 862 | 0.6 | 3.9 | 2.2 |
| 40  | 50  | 69  | GATAAATACC  | 863 | 1.3 | 1.4 | 1.7 |
| 54  | 37  | 67  | GTTATGGCCA  | 864 | 0.7 | 1.8 | 1.2 |
| 42  | 48  | 64  | ACATCAATTGA | 865 | 1.1 | 1.3 | 1.5 |
| 37  | 47  | 69  | TTCAAAAGAA  | 866 | 1.3 | 1.5 | 1.9 |

Table 5, cont.

|    |     |    |             |     |      |     |     |
|----|-----|----|-------------|-----|------|-----|-----|
| 81 | 42  | 30 | TTTTAAATGG  | 867 | 0.5  | 0.7 | 0.4 |
| 37 | 40  | 73 | AGAAAGCAAG  | 868 | 1.1  | 1.8 | 2.0 |
| 47 | 30  | 73 | AGAATCTTGA  | 869 | 0.6  | 2.4 | 1.6 |
| 52 | 55  | 43 | ATCTTTAATT  | 870 | 1.1  | 0.8 | 0.8 |
| 41 | 56  | 47 | AGACCATTCG  | 871 | 1.4  | 0.8 | 1.1 |
| 36 | 29  | 79 | GCTGCTAGAC  | 872 | 0.8  | 2.7 | 2.2 |
| 83 | 20  | 39 | GAAGAATTAG  | 873 | 0.2  | 2.0 | 0.5 |
| 51 | 31  | 59 | CTGGCAAACC  | 874 | 0.6  | 1.9 | 1.2 |
| 49 | 47  | 43 | CAACAACCTAC | 875 | 1.0  | 0.9 | 0.9 |
| 58 | 49  | 32 | GGTGTCGTTG  | 876 | 0.8  | 0.7 | 0.6 |
| 55 | 47  | 37 | TACTTCAACT  | 877 | 0.9  | 0.8 | 0.7 |
| 26 | 48  | 64 | CACACCAAGA  | 878 | 1.8  | 1.3 | 2.5 |
| 52 | 35  | 49 | GCAAAGACCT  | 879 | 0.7  | 1.4 | 0.9 |
| 57 | 28  | 50 | AACTAAACTG  | 880 | 0.5  | 1.8 | 0.9 |
| 35 | 64  | 36 | GGTAACGTAA  | 881 | 1.8  | 0.6 | 1.0 |
| 38 | 36  | 60 | AAGGACAGAG  | 882 | 0.9  | 1.7 | 1.6 |
| 31 | 15  | 87 | ACCCACAGCTC | 883 | 0.5  | 5.8 | 2.8 |
| 48 | 20  | 65 | TACTCTTCGC  | 884 | 0.4  | 3.3 | 1.4 |
| 57 | 39  | 37 | TCGCTTCATT  | 885 | 0.7  | 0.9 | 0.6 |
| 48 | 47  | 37 | AAATGAATTT  | 886 | 1.0  | 0.8 | 0.8 |
| 22 | 38  | 72 | GGTACTGAAG  | 887 | 1.7  | 1.9 | 3.3 |
| 38 | 41  | 51 | TCCGAGTCCG  | 888 | 1.1  | 1.2 | 1.3 |
| 36 | 50  | 41 | TACACAATTT  | 889 | 1.4  | 0.8 | 1.1 |
| 64 | 47  | 16 | TATTGTACTT  | 890 | 0.7  | 0.3 | 0.3 |
| 7  | 111 | 9  | TCTAAGTCCG  | 891 | 15.9 | 0.1 | 1.3 |
| 32 | 43  | 49 | GGATGATGAA  | 892 | 1.3  | 1.1 | 1.5 |
| 34 | 33  | 54 | GATGTCATCA  | 893 | 1.0  | 1.6 | 1.6 |
| 43 | 34  | 44 | TGGGCTTGGG  | 894 | 0.8  | 1.3 | 1.0 |

Table 5, cont.

|    |     |    |            |     |      |     |      |
|----|-----|----|------------|-----|------|-----|------|
| 56 | 28  | 36 | AACGCTTTAA | 895 | 0.5  | 1.3 | 0.6  |
| 40 | 50  | 30 | TACAAATTTA | 896 | 1.3  | 0.6 | 0.8  |
| 3  | 114 | 0  | ACGTTCTTTT | 897 | 38.0 | 0.0 | 0.0  |
| 37 | 32  | 48 | TTTCTCAAGT | 898 | 0.9  | 1.5 | 1.3  |
| 33 | 29  | 53 | GGTACTTTGA | 899 | 0.9  | 1.8 | 1.6  |
| 52 | 40  | 21 | TTGAAATTTT | 900 | 0.8  | 0.5 | 0.4  |
| 41 | 16  | 54 | AAGAAGCCAG | 901 | 0.4  | 3.4 | 1.3  |
| 57 | 29  | 25 | GCTGCTATGC | 902 | 0.5  | 0.9 | 0.4  |
| 23 | 68  | 19 | TTTACCAGTT | 903 | 3.0  | 0.3 | 0.8  |
| 53 | 14  | 42 | AAGGAATTCA | 904 | 0.3  | 3.0 | 0.8  |
| 35 | 34  | 39 | CTGTCTCTGA | 905 | 1.0  | 1.1 | 1.1  |
| 31 | 55  | 22 | TTGGGTAGTG | 906 | 1.8  | 0.4 | 0.7  |
| 39 | 55  | 12 | TGTAATTAA  | 907 | 1.4  | 0.2 | 0.3  |
| 51 | 24  | 31 | TTTCCCAAGT | 908 | 0.5  | 1.3 | 0.6  |
| 9  | 85  | 9  | GAAACATCT  | 909 | 9.4  | 0.1 | 1.0  |
| 25 | 46  | 31 | CCATTCTGGG | 910 | 1.8  | 0.7 | 1.2  |
| 46 | 37  | 17 | GAATACTAAG | 911 | 0.8  | 0.5 | 0.4  |
| 56 | 17  | 24 | AGAAGAGCTA | 912 | 0.3  | 1.4 | 0.4  |
| 56 | 21  | 20 | GCTTTAAGTT | 913 | 0.4  | 1.0 | 0.4  |
| 20 | 60  | 17 | GGAGATCTTG | 914 | 3.0  | 0.3 | 0.9  |
| 15 | 31  | 51 | GTTTCCCAA  | 915 | 2.1  | 1.6 | 3.4  |
| 20 | 26  | 50 | CACGAAAGC  | 916 | 1.3  | 1.9 | 2.5  |
| 30 | 19  | 46 | TGTCTCAGCG | 917 | 0.6  | 2.4 | 11.5 |
| 33 | 40  | 20 | TCTAGTCTCT | 918 | 1.2  | 0.5 | 0.6  |
| 27 | 19  | 46 | GCTGCCAGAC | 919 | 0.7  | 2.4 | 1.7  |
| 22 | 29  | 40 | TTAGAAAGGT | 920 | 1.3  | 1.4 | 1.8  |
| 38 | 47  | 4  | AAAAAAAAAA | 921 | 1.2  | 0.1 | 0.1  |
| 31 | 37  | 20 | GTCCGCGCAT | 922 | 1.2  | 0.5 | 0.6  |

Table 5, cont.

|    |    |    |             |     |     |     |     |
|----|----|----|-------------|-----|-----|-----|-----|
| 42 | 14 | 31 | CCTGTTTGAG  | 923 | 0.3 | 2.2 | 0.7 |
| 34 | 23 | 30 | TTGTCTCTTT  | 924 | 0.7 | 1.3 | 0.9 |
| 32 | 22 | 32 | ATTCCTTGAG  | 925 | 0.7 | 1.5 | 1.0 |
| 29 | 33 | 23 | ATCTCCAATG  | 926 | 1.1 | 0.7 | 0.8 |
| 15 | 28 | 41 | AGAAACAAG   | 927 | 1.9 | 1.5 | 2.7 |
| 47 | 28 | 7  | AATTATTAAG  | 928 | 0.6 | 0.3 | 0.1 |
| 38 | 37 | 7  | ATTTAATATC  | 929 | 1.0 | 0.2 | 0.2 |
| 12 | 31 | 39 | TCAAGAAGTT  | 930 | 2.6 | 1.3 | 3.3 |
| 44 | 22 | 15 | ACGCCACTC   | 931 | 0.5 | 0.7 | 0.3 |
| 18 | 22 | 40 | GGACCTGCCG  | 932 | 1.2 | 1.8 | 2.2 |
| 18 | 38 | 23 | ACTTTAAAT   | 933 | 2.1 | 0.6 | 1.3 |
| 37 | 24 | 15 | GTTGTTTCA   | 934 | 0.6 | 0.6 | 0.4 |
| 13 | 59 | 4  | TTTATATAAA  | 935 | 4.5 | 0.1 | 0.3 |
| 21 | 23 | 30 | CACTTCAACA  | 936 | 1.1 | 1.3 | 1.4 |
| 28 | 15 | 29 | AAAACCTTG   | 937 | 0.5 | 1.9 | 1.0 |
| 15 | 16 | 40 | AACGTGCTG   | 938 | 1.1 | 2.5 | 2.7 |
| 22 | 20 | 26 | GAAATCTGGT  | 939 | 0.9 | 1.3 | 1.2 |
| 11 | 11 | 46 | GAGGACGCCA  | 940 | 1.0 | 4.2 | 4.2 |
| 19 | 28 | 21 | TTTTGTACAA  | 941 | 1.5 | 0.8 | 1.1 |
| 19 | 14 | 34 | AAGTTGAACA  | 942 | 0.7 | 2.4 | 1.8 |
| 19 | 30 | 18 | CCAATGCACA  | 943 | 1.6 | 0.6 | 0.9 |
| 21 | 18 | 27 | AGGAAGCTAG  | 944 | 0.9 | 1.5 | 1.3 |
| 16 | 17 | 33 | TGTACGCATT  | 945 | 1.1 | 1.9 | 2.1 |
| 19 | 16 | 30 | TCGACGTGGC  | 946 | 0.8 | 1.9 | 1.6 |
| 9  | 32 | 23 | GGTGCGGGT   | 947 | 3.6 | 0.7 | 2.6 |
| 12 | 19 | 33 | GTCGTTCCCTA | 948 | 1.6 | 1.7 | 2.8 |
| 38 | 11 | 14 | CGGTAGTCCA  | 949 | 0.3 | 1.3 | 0.4 |
| 14 | 23 | 26 | GGATGGATGC  | 950 | 1.6 | 1.1 | 1.9 |



Table 5, cont.

|    |    |    |            |     |         |     |         |
|----|----|----|------------|-----|---------|-----|---------|
| 35 | 13 | 14 | ACTAGAAATT | 951 | 0.4     | 1.1 | 0.4     |
| 7  | 48 | 4  | ACCAATCTAC | 952 | 6.9     | 0.1 | 0.6     |
| 14 | 25 | 20 | GGAGATTCA  | 953 | 1.8     | 0.8 | 1.4     |
| 15 | 39 | 5  | TTTTATTATC | 954 | 2.6     | 0.1 | 0.3     |
| 34 | 8  | 16 | CTAGAACGCG | 955 | 0.2     | 2.0 | 0.5     |
| 10 | 16 | 31 | AAGCTACCGT | 956 | 1.6     | 1.9 | 3.1     |
| 22 | 14 | 21 | TGACTCTTTG | 957 | 0.6     | 1.5 | 1.0     |
| 24 | 15 | 17 | ATTACGTTTT | 958 | 0.6     | 1.1 | 0.7     |
| 13 | 31 | 12 | TCCCGTACAT | 959 | 2.4     | 0.4 | 0.9     |
| 39 | 5  | 11 | AGTGTGCGTA | 960 | 0.1     | 2.2 | 0.3     |
| 37 | 11 | 7  | CACAGAAAAA | 961 | 0.3     | 0.6 | 0.2     |
| 14 | 17 | 24 | GGTTTAAAGT | 962 | 1.2     | 1.4 | 1.7     |
| 15 | 34 | 5  | ACTTAATAAT | 963 | 2.3     | 0.1 | 0.3     |
| 21 | 17 | 15 | GTTTATCCAA | 964 | 0.8     | 0.9 | 0.7     |
| 7  | 29 | 16 | TACTTACTCA | 965 | 4.1     | 0.6 | 2.3     |
| 12 | 18 | 22 | TTTGGTGGTA | 966 | 1.5     | 1.2 | 1.8     |
| 22 | 11 | 18 | CTCAAACCGA | 967 | 0.5     | 1.6 | 0.8     |
| 18 | 11 | 22 | GGAGAAGGTG | 968 | 0.6     | 2.0 | 1.2     |
| 26 | 16 | 9  | TTACTTTTAC | 969 | 0.6     | 0.6 | 0.3     |
| 13 | 13 | 24 | ATGCTGAGGG | 970 | 1.0     | 1.8 | 1.8     |
| 19 | 20 | 11 | GTGTGGTCAC | 971 | 1.1     | 0.6 | 10.6    |
| 0  | 49 | 0  | CTTCTCTTTT | 972 | #DIV/0! | 0.0 | #DIV/0! |
| 22 | 12 | 15 | TGGTGAAGTC | 973 | 0.5     | 1.3 | 0.7     |
| 10 | 16 | 22 | CACTTGAGTT | 974 | 1.6     | 1.4 | 2.2     |
| 13 | 9  | 26 | TGAGGGTGAT | 975 | 0.7     | 2.9 | 2.0     |
| 29 | 12 | 7  | TGATACTAAG | 976 | 0.4     | 0.6 | 0.2     |
| 18 | 6  | 22 | TTGGAAAGGA | 977 | 0.3     | 3.7 | 1.2     |
| 15 | 15 | 15 | TCCACTATT  | 978 | 1.0     | 1.0 | 1.0     |

Table 5, cont.

|    |    |    |            |      |     |     |     |
|----|----|----|------------|------|-----|-----|-----|
| 15 | 14 | 15 | CACCTCAACT | 979  | 0.9 | 1.1 | 1.0 |
| 8  | 7  | 29 | CAGACCGCTT | 980  | 0.9 | 4.1 | 3.6 |
| 23 | 10 | 11 | GGTCAATGGC | 981  | 0.4 | 1.1 | 0.5 |
| 19 | 20 | 5  | TAAGAATTCT | 982  | 1.1 | 0.3 | 0.3 |
| 9  | 16 | 19 | TCGAAGCTGT | 983  | 1.8 | 1.2 | 2.1 |
| 11 | 15 | 17 | GCCAAGCAAT | 984  | 1.4 | 1.1 | 1.5 |
| 21 | 11 | 11 | TATGAATGCA | 985  | 0.5 | 1.0 | 0.5 |
| 22 | 13 | 8  | TCAATTATGT | 986  | 0.6 | 0.6 | 0.4 |
| 25 | 17 | 1  | TTTCCTATAA | 987  | 0.7 | 0.1 | 0.0 |
| 23 | 7  | 12 | AACGATCTTC | 988  | 0.3 | 1.7 | 0.5 |
| 22 | 6  | 14 | ACGGCCAAGA | 989  | 0.3 | 2.3 | 0.6 |
| 7  | 16 | 19 | TCTAGTCGCC | 990  | 2.3 | 1.2 | 2.7 |
| 8  | 22 | 11 | ACTGAAAACG | 991  | 2.8 | 0.5 | 1.4 |
| 21 | 5  | 15 | ATCCATCGTG | 992  | 0.2 | 3.0 | 0.7 |
| 9  | 8  | 24 | ATTCCGTTGA | 993  | 0.9 | 3.0 | 2.7 |
| 16 | 6  | 19 | TTGGCCCCAC | 994  | 0.4 | 3.2 | 1.2 |
| 17 | 11 | 12 | AAATTGATGC | 995  | 0.6 | 1.1 | 0.7 |
| 17 | 19 | 4  | ACTTATGTAA | 996  | 1.1 | 0.2 | 0.2 |
| 4  | 19 | 17 | CTTCCAGGT  | 997  | 4.8 | 0.9 | 4.3 |
| 20 | 18 | 2  | TCTATATGTG | 998  | 0.9 | 0.1 | 0.1 |
| 13 | 12 | 15 | TTGGGCTAGT | 999  | 0.9 | 1.3 | 1.2 |
| 11 | 19 | 10 | TTTGTTGTA  | 1000 | 1.7 | 0.5 | 0.9 |
| 12 | 12 | 15 | CAAAATTTTG | 1001 | 1.0 | 1.3 | 1.3 |
| 12 | 12 | 15 | CCTCTCTTGT | 1002 | 1.0 | 1.3 | 1.3 |
| 8  | 16 | 15 | CGGACCTTGT | 1003 | 2.0 | 0.9 | 1.9 |
| 12 | 17 | 10 | GCAATTGGTC | 1004 | 1.4 | 0.6 | 0.8 |
| 12 | 9  | 18 | GGCAAACGAA | 1005 | 0.8 | 2.0 | 1.5 |
| 10 | 16 | 12 | GACTAGCGAA | 1006 | 1.6 | 0.8 | 1.2 |

Table 5, cont.

|    |    |    |             |      |     |     |     |
|----|----|----|-------------|------|-----|-----|-----|
| 15 | 12 | 11 | TTGATCCGTG  | 1007 | 0.8 | 0.9 | 0.7 |
| 12 | 14 | 11 | AACAAGTACT  | 1008 | 1.2 | 0.8 | 0.9 |
| 11 | 16 | 10 | ATGGCTTCTC  | 1009 | 1.5 | 0.6 | 0.9 |
| 9  | 22 | 6  | CCCAAACTT   | 1010 | 2.4 | 0.3 | 0.7 |
| 7  | 12 | 18 | GCCGCTTACA  | 1011 | 1.7 | 1.5 | 2.6 |
| 18 | 12 | 7  | TATAGAATTA  | 1012 | 0.7 | 0.6 | 0.4 |
| 11 | 15 | 11 | TGATTTTGT   | 1013 | 1.4 | 0.7 | 1.0 |
| 14 | 14 | 8  | AATCAACAG   | 1014 | 1.0 | 0.6 | 0.6 |
| 13 | 7  | 16 | AGAAGCGGT   | 1015 | 0.5 | 2.3 | 1.2 |
| 25 | 3  | 8  | TCTAAATTGT  | 1016 | 0.1 | 2.7 | 0.3 |
| 10 | 13 | 12 | GCGAATTCGA  | 1017 | 1.3 | 0.9 | 1.2 |
| 5  | 12 | 18 | GGAATCTACT  | 1018 | 2.4 | 1.5 | 3.6 |
| 14 | 16 | 5  | TTAAAAAAA   | 1019 | 1.1 | 0.3 | 0.4 |
| 15 | 10 | 9  | AAACCTTCAC  | 1020 | 0.7 | 0.9 | 0.6 |
| 15 | 10 | 9  | AACAATAAAA  | 1021 | 0.7 | 0.9 | 0.6 |
| 11 | 16 | 7  | ATCGTTTTAT  | 1022 | 1.5 | 0.4 | 0.6 |
| 7  | 13 | 14 | CAAAAGACCG  | 1023 | 1.9 | 1.1 | 2.0 |
| 12 | 7  | 15 | GGTTTTTGAT  | 1024 | 0.6 | 2.1 | 1.3 |
| 10 | 16 | 8  | TCGTCGTCAG  | 1025 | 1.6 | 0.5 | 0.8 |
| 15 | 9  | 10 | TTAGCCCACTG | 1026 | 0.6 | 1.1 | 0.7 |
| 6  | 9  | 19 | TTTTGGAACA  | 1027 | 1.5 | 2.1 | 3.2 |
| 5  | 10 | 18 | CAATCCATTT  | 1028 | 2.0 | 1.8 | 3.6 |
| 9  | 11 | 13 | CTGGTGCTAA  | 1029 | 1.2 | 1.2 | 1.4 |
| 4  | 11 | 18 | GCTAGACAAA  | 1030 | 2.8 | 1.6 | 4.5 |
| 11 | 12 | 10 | TTTTGGGTCT  | 1031 | 1.1 | 0.8 | 0.9 |
| 14 | 7  | 11 | AACAGGCCGC  | 1032 | 0.5 | 1.6 | 0.8 |
| 11 | 11 | 10 | AACTGTCCAT  | 1033 | 1.0 | 0.9 | 0.9 |
| 8  | 16 | 8  | CCAAGGTAA   | 1034 | 2.0 | 0.5 | 1.0 |

Table 5, cont.

|    |    |    |             |      |     |     |     |
|----|----|----|-------------|------|-----|-----|-----|
| 8  | 10 | 14 | CGGTACAGAA  | 1035 | 1.3 | 1.4 | 1.8 |
| 6  | 12 | 14 | GAAAGAGATT  | 1036 | 2.0 | 1.2 | 2.3 |
| 9  | 10 | 13 | GGCCAATGGT  | 1037 | 1.1 | 1.3 | 1.4 |
| 12 | 9  | 11 | GGTTTTTGAA  | 1038 | 0.8 | 1.2 | 0.9 |
| 10 | 13 | 9  | GTTTTTCCCA  | 1039 | 1.3 | 0.7 | 0.9 |
| 3  | 14 | 15 | TGGTTTAACG  | 1040 | 4.7 | 1.1 | 5.0 |
| 9  | 14 | 8  | AAGATGCTAT  | 1041 | 1.6 | 0.6 | 0.9 |
| 18 | 10 | 3  | CTAACGCGC   | 1042 | 0.6 | 0.3 | 0.2 |
| 11 | 12 | 8  | GAACTTTATA  | 1043 | 1.1 | 0.7 | 0.7 |
| 7  | 7  | 17 | GGGTGATGCT  | 1044 | 1.0 | 2.4 | 2.4 |
| 8  | 10 | 13 | TTCCTGACCG  | 1045 | 1.3 | 1.3 | 1.6 |
| 7  | 14 | 9  | ACCCTGTCAT  | 1046 | 2.0 | 0.6 | 1.3 |
| 9  | 18 | 3  | ATATCATTTGA | 1047 | 2.0 | 0.2 | 0.3 |
| 8  | 6  | 16 | CCACCAAAGG  | 1048 | 0.8 | 2.7 | 2.0 |
| 10 | 16 | 4  | CCCCGTACAT  | 1049 | 1.6 | 0.3 | 0.4 |
| 16 | 5  | 9  | CTGCGTTACA  | 1050 | 0.3 | 1.8 | 0.6 |
| 11 | 11 | 8  | CTTACTTTTGA | 1051 | 1.0 | 0.7 | 0.7 |
| 9  | 15 | 6  | TATTTTCATT  | 1052 | 1.7 | 0.4 | 0.7 |
| 7  | 15 | 8  | TCCCTCACT   | 1053 | 2.1 | 0.5 | 1.1 |
| 8  | 12 | 9  | ACTGCTGACT  | 1054 | 1.5 | 0.8 | 1.1 |
| 9  | 8  | 12 | AGAGTGCATA  | 1055 | 0.9 | 1.5 | 1.3 |
| 2  | 15 | 12 | ATCTTTGGCT  | 1056 | 7.5 | 0.8 | 6.0 |
| 6  | 5  | 18 | CACGGTTTGC  | 1057 | 0.8 | 3.6 | 3.0 |
| 10 | 10 | 9  | TCTTTGATTA  | 1058 | 1.0 | 0.9 | 0.9 |
| 12 | 10 | 7  | TGTGTTTTTG  | 1059 | 0.8 | 0.7 | 0.6 |
| 8  | 11 | 10 | TTTACGCCCT  | 1060 | 1.4 | 0.9 | 1.3 |
| 9  | 18 | 1  | ATTACCGTTT  | 1061 | 2.0 | 0.1 | 0.1 |
| 15 | 9  | 4  | ATTGGTCAAT  | 1062 | 0.6 | 0.4 | 0.3 |

Table 5, cont.

|    |    |    |            |      |      |         |     |      |
|----|----|----|------------|------|------|---------|-----|------|
| 9  | 12 | 7  | CGAGCTTCG  | 1063 | 1.3  |         | 0.6 | 0.8  |
| 7  | 13 | 8  | CGTAAATACT | 1064 | 1.9  |         | 0.6 | 1.1  |
| 12 | 2  | 14 | GCAAAAATAT | 1065 | 0.2  |         | 7.0 | 1.2  |
| 5  | 10 | 13 | GCTTGGCGG  | 1066 | 2.0  |         | 1.3 | 2.6  |
| 9  | 13 | 6  | GGGTGATAA  | 1067 | 1.4  |         | 0.5 | 0.7  |
| 7  | 12 | 9  | GTGAAGATTG | 1068 | 1.7  |         | 0.8 | 1.3  |
| 9  | 7  | 12 | TAAGGAGTTT | 1069 | 0.8  |         | 1.7 | 1.3  |
| 2  | 16 | 10 | TTAATTCGT  | 1070 | 8.0  |         | 0.6 | 5.0  |
| 5  | 19 | 3  | AAAAGATCAT | 1071 | 3.8  |         | 0.2 | 0.6  |
| 10 | 6  | 11 | AACAAGTCGG | 1072 | 0.6  |         | 1.8 | 1.1  |
| 9  | 13 | 5  | AACTGAATCT | 1073 | 1.4  |         | 0.4 | 0.6  |
| 9  | 9  | 9  | AAGACAATCG | 1074 | 1.0  |         | 1.0 | 1.0  |
| 4  | 11 | 12 | AAGGAGTTGG | 1075 | 2.8  |         | 1.1 | 3.0  |
| 13 | 7  | 7  | CGAACGATGA | 1076 | 0.5  |         | 1.0 | 0.5  |
| 3  | 18 | 6  | GCAACAACCT | 1077 | 6.0  |         | 0.3 | 2.0  |
| 18 | 0  | 9  | GGATATAAAT | 1078 | 0.0  | #DIV/0! |     | 0.5  |
| 11 | 10 | 6  | GGTCCAATTA | 1079 | 0.9  |         | 0.6 | 0.5  |
| 10 | 6  | 11 | GGTCCATTGG | 1080 | 0.6  |         | 1.8 | 1.1  |
| 14 | 3  | 10 | GGTCTGTATA | 1081 | 0.2  |         | 3.3 | 0.7  |
| 8  | 7  | 12 | GTGGTCTCTC | 1082 | 0.9  |         | 1.7 | 1.5  |
| 14 | 6  | 6  | ATATTCCTCC | 1083 | 0.4  |         | 1.0 | 0.4  |
| 6  | 8  | 12 | ATGTTTTTGA | 1084 | 1.3  |         | 1.5 | 2.0  |
| 10 | 0  | 16 | CCTGGTCGTC | 1085 | 0.0  | #DIV/0! |     | 1.6  |
| 6  | 6  | 14 | GACTAATGTT | 1086 | 1.0  |         | 2.3 | 2.3  |
| 8  | 11 | 7  | GAGGATAACG | 1087 | 1.4  |         | 0.6 | 0.9  |
| 1  | 15 | 10 | GCAGTAAAGG | 1088 | 15.0 |         | 0.7 | 10.0 |
| 12 | 7  | 7  | GCCTGTGCT  | 1089 | 0.6  |         | 1.0 | 0.6  |
| 7  | 9  | 10 | GCGCACCAAA | 1090 | 1.3  |         | 1.1 | 1.4  |

Table 5, cont.

|    |    |    |            |      |      |     |     |
|----|----|----|------------|------|------|-----|-----|
| 6  | 8  | 12 | GTACACCACA | 1091 | 1.3  | 1.5 | 2.0 |
| 9  | 7  | 9  | AAGAGTCTC  | 1092 | 0.8  | 1.3 | 1.0 |
| 6  | 7  | 12 | AGACGTTGA  | 1093 | 1.2  | 1.7 | 2.0 |
| 5  | 9  | 11 | CAGAAATGG  | 1094 | 1.8  | 1.2 | 2.2 |
| 7  | 9  | 9  | CCATTCAIT  | 1095 | 1.3  | 1.0 | 1.3 |
| 12 | 9  | 4  | CGGTCTCTAT | 1096 | 0.8  | 0.4 | 0.3 |
| 7  | 6  | 12 | CTTCTTCAG  | 1097 | 0.9  | 2.0 | 1.7 |
| 12 | 3  | 10 | GACGACTGG  | 1098 | 0.3  | 3.3 | 0.8 |
| 10 | 7  | 8  | GCTGCTACTT | 1099 | 0.7  | 1.1 | 0.8 |
| 8  | 6  | 11 | GGCAAATTAC | 1100 | 0.8  | 1.8 | 1.4 |
| 10 | 8  | 7  | GTTGCATAAT | 1101 | 0.8  | 0.9 | 0.7 |
| 5  | 9  | 11 | TGGTGTTGTC | 1102 | 1.8  | 1.2 | 2.2 |
| 5  | 10 | 10 | TTCTTCGCCT | 1103 | 2.0  | 1.0 | 2.0 |
| 13 | 8  | 3  | AGAAAAATC  | 1104 | 0.6  | 0.4 | 0.2 |
| 8  | 7  | 9  | AGCGGGTTCT | 1105 | 0.9  | 1.3 | 1.1 |
| 7  | 11 | 6  | CGTTCATCCG | 1106 | 1.6  | 0.5 | 0.9 |
| 14 | 5  | 5  | CTTAAATCT  | 1107 | 0.4  | 1.0 | 0.4 |
| 7  | 8  | 9  | GAGTTGCTGA | 1108 | 1.1  | 1.1 | 1.3 |
| 2  | 20 | 2  | GGCGGAGGCT | 1109 | 10.0 | 0.1 | 1.0 |
| 7  | 5  | 12 | GGTAAGAAAA | 1110 | 0.7  | 2.4 | 1.7 |
| 11 | 6  | 7  | GGTACTAGAA | 1111 | 0.5  | 1.2 | 0.6 |
| 6  | 5  | 13 | GTTCCAAGAC | 1112 | 0.8  | 2.6 | 2.2 |
| 7  | 9  | 8  | TGACATTCIT | 1113 | 1.3  | 0.9 | 1.1 |
| 4  | 3  | 17 | TGCGCCTCTT | 1114 | 0.8  | 5.7 | 4.3 |
| 10 | 9  | 5  | TTGACAAAT  | 1115 | 0.9  | 0.6 | 0.5 |
| 10 | 3  | 10 | CAGGAAGCTG | 1116 | 0.3  | 3.3 | 1.0 |
| 3  | 15 | 5  | CCGAACGGTT | 1117 | 5.0  | 0.3 | 1.7 |
| 5  | 16 | 2  | CCGACAACGA | 1118 | 3.2  | 0.1 | 0.4 |

Table 5, cont.

|    |    |    |             |      |     |     |     |
|----|----|----|-------------|------|-----|-----|-----|
| 9  | 5  | 9  | CGCCGGTCC   | 1119 | 0.6 | 1.8 | 1.0 |
| 9  | 6  | 8  | GAAGTCGCTG  | 1120 | 0.7 | 1.3 | 0.9 |
| 2  | 13 | 8  | GCATTC AAC  | 1121 | 6.5 | 0.6 | 4.0 |
| 8  | 5  | 10 | GCTAAATTT   | 1122 | 0.6 | 2.0 | 1.3 |
| 10 | 4  | 9  | GCTTTGATTG  | 1123 | 0.4 | 2.3 | 0.9 |
| 4  | 12 | 7  | GTCGCCAGTG  | 1124 | 3.0 | 0.6 | 1.8 |
| 4  | 16 | 3  | TAGACATCTA  | 1125 | 4.0 | 0.2 | 0.8 |
| 7  | 2  | 14 | TTC AACCCAA | 1126 | 0.3 | 7.0 | 2.0 |
| 10 | 9  | 4  | TTTTCTATGA  | 1127 | 0.9 | 0.4 | 0.4 |
| 6  | 10 | 6  | AACCGCTAAG  | 1128 | 1.7 | 0.6 | 1.0 |
| 3  | 10 | 9  | AATGTGGCTC  | 1129 | 3.3 | 0.9 | 3.0 |
| 7  | 8  | 7  | AGACTCCATT  | 1130 | 1.1 | 0.9 | 1.0 |
| 10 | 8  | 4  | ATGTTTAGTT  | 1131 | 0.8 | 0.5 | 0.4 |
| 5  | 8  | 9  | ATGACCAGCC  | 1132 | 1.6 | 1.1 | 1.8 |
| 5  | 4  | 13 | CAACCCACTG  | 1133 | 0.8 | 3.3 | 2.6 |
| 8  | 5  | 9  | CACGCCGCTC  | 1134 | 0.6 | 1.8 | 1.1 |
| 9  | 4  | 9  | CCGAGCCAAA  | 1135 | 0.4 | 2.3 | 1.0 |
| 5  | 9  | 8  | CCTCTACATT  | 1136 | 1.8 | 0.9 | 1.6 |
| 7  | 6  | 9  | CTCTAAACCG  | 1137 | 0.9 | 1.5 | 1.3 |
| 9  | 6  | 7  | CTGACCAAT   | 1138 | 0.7 | 1.2 | 0.8 |
| 7  | 6  | 9  | CTTCTTTTA   | 1139 | 0.9 | 1.5 | 1.3 |
| 6  | 8  | 8  | GAAATCTGGA  | 1140 | 1.3 | 1.0 | 1.3 |
| 6  | 11 | 5  | GATGCCGAAA  | 1141 | 1.8 | 0.5 | 0.8 |
| 7  | 5  | 10 | TAAATGATT   | 1142 | 0.7 | 2.0 | 1.4 |
| 8  | 14 | 0  | TACTATATAT  | 1143 | 1.8 | 0.0 | 0.0 |
| 9  | 9  | 4  | TGATTAAAA   | 1144 | 1.0 | 0.4 | 0.4 |
| 9  | 3  | 10 | TGCCCTGGCC  | 1145 | 0.3 | 3.3 | 1.1 |
| 8  | 8  | 6  | TGCGCGAATC  | 1146 | 1.0 | 0.8 | 0.8 |

Table 5, cont.

|    |    |    |            |      |     |     |     |
|----|----|----|------------|------|-----|-----|-----|
| 8  | 5  | 8  | ACAATGCTAT | 1147 | 0.6 | 1.6 | 1.0 |
| 6  | 5  | 10 | AGCAAAAGTG | 1148 | 0.8 | 2.0 | 1.7 |
| 6  | 14 | 1  | ATATTATTG  | 1149 | 2.3 | 0.1 | 0.2 |
| 8  | 13 | 0  | ATCTTTTAC  | 1150 | 1.6 | 0.0 | 0.0 |
| 4  | 9  | 8  | CCATTTTGG  | 1151 | 2.3 | 0.9 | 2.0 |
| 5  | 12 | 4  | CTATATTCA  | 1152 | 2.4 | 0.3 | 0.8 |
| 15 | 4  | 2  | GACATTTGTT | 1153 | 0.3 | 0.5 | 0.1 |
| 5  | 9  | 7  | GGAAGAAGCT | 1154 | 1.8 | 0.8 | 1.4 |
| 7  | 7  | 7  | GTCCCAAAAA | 1155 | 1.0 | 1.0 | 1.0 |
| 6  | 4  | 11 | GTTACTCGGG | 1156 | 0.7 | 2.8 | 1.8 |
| 7  | 8  | 6  | TAACGAGTAC | 1157 | 1.1 | 0.8 | 0.9 |
| 15 | 4  | 2  | TAATCATTAT | 1158 | 0.3 | 0.5 | 0.1 |
| 9  | 10 | 2  | TCCCTATAAG | 1159 | 1.1 | 0.2 | 0.2 |
| 10 | 7  | 4  | TGTCACCCCA | 1160 | 0.7 | 0.6 | 0.4 |
| 5  | 14 | 2  | TTTACGATAA | 1161 | 2.8 | 0.1 | 0.4 |
| 8  | 5  | 7  | AAGAGGTCAG | 1162 | 0.6 | 1.4 | 0.9 |
| 5  | 9  | 6  | ACAAAGTTAT | 1163 | 1.8 | 0.7 | 1.2 |
| 11 | 3  | 6  | ATTAAGCGTA | 1164 | 0.3 | 2.0 | 0.5 |
| 4  | 9  | 7  | CAAGAAGCTA | 1165 | 2.3 | 0.8 | 1.8 |
| 7  | 9  | 4  | CATAGCTAAT | 1166 | 1.3 | 0.4 | 0.6 |
| 2  | 7  | 11 | CCAAGGCCAT | 1167 | 3.5 | 1.6 | 5.5 |
| 4  | 9  | 7  | CCTTCAAGAA | 1168 | 2.3 | 0.8 | 1.8 |
| 10 | 4  | 6  | GAAGAACGTG | 1169 | 0.4 | 1.5 | 0.6 |
| 7  | 4  | 9  | GTTGCCTCAG | 1170 | 0.6 | 2.3 | 1.3 |
| 8  | 6  | 6  | GTTTCCTTTC | 1171 | 0.8 | 1.0 | 0.8 |
| 6  | 6  | 8  | TAAATGGAAC | 1172 | 1.0 | 1.3 | 1.3 |
| 9  | 7  | 4  | TGTGTATGAA | 1173 | 0.8 | 0.6 | 0.4 |
| 4  | 8  | 8  | TTTCTGGTGA | 1174 | 2.0 | 1.0 | 2.0 |



Table 5, cont.

|    |    |    |            |      |      |      |      |
|----|----|----|------------|------|------|------|------|
| 3  | 13 | 3  | AAAGATACT  | 1175 | 4.3  | 0.2  | 1.0  |
| 10 | 4  | 5  | ACCACTAGAG | 1176 | 0.4  | 1.3  | 0.5  |
| 1  | 10 | 8  | AGAAAGGATA | 1177 | 10.0 | 0.8  | 8.0  |
| 8  | 3  | 8  | AGAGCCATAA | 1178 | 0.4  | 2.7  | 1.0  |
| 3  | 5  | 11 | ATGATGGCAT | 1179 | 1.7  | 2.2  | 3.7  |
| 9  | 4  | 6  | ATTGAATCAA | 1180 | 0.4  | 1.5  | 0.7  |
| 12 | 4  | 3  | CAGCCTTTAA | 1181 | 0.3  | 0.8  | 0.3  |
| 9  | 2  | 8  | CCAAAGCTGC | 1182 | 0.2  | 4.0  | 0.9  |
| 3  | 5  | 11 | CTCCCTCAAT | 1183 | 1.7  | 2.2  | 3.7  |
| 4  | 10 | 5  | CTGACTCCTT | 1184 | 2.5  | 0.5  | 1.3  |
| 10 | 3  | 6  | GAAAAAACT  | 1185 | 0.3  | 2.0  | 0.6  |
| 8  | 1  | 10 | GAGGGATCCA | 1186 | 0.1  | 10.0 | 1.3  |
| 2  | 15 | 2  | GCGCCAATAG | 1187 | 7.5  | 0.1  | 1.0  |
| 4  | 6  | 9  | GCCTCTGGCA | 1188 | 1.5  | 1.5  | 12.3 |
| 4  | 4  | 11 | GGTTGATGCG | 1189 | 1.0  | 2.8  | 2.8  |
| 9  | 6  | 4  | GTCTTATTTT | 1190 | 0.7  | 0.7  | 0.4  |
| 9  | 4  | 6  | GTTGGATGGA | 1191 | 0.4  | 1.5  | 0.7  |
| 3  | 13 | 3  | GTTTACTGTT | 1192 | 4.3  | 0.2  | 1.0  |
| 13 | 5  | 1  | TATAATAATT | 1193 | 0.4  | 0.2  | 0.1  |
| 4  | 5  | 10 | TCCGAATATG | 1194 | 1.3  | 2.0  | 2.5  |
| 4  | 8  | 7  | TCCTTAGCGC | 1195 | 2.0  | 0.9  | 1.8  |
| 7  | 7  | 5  | TCCTTGTCTA | 1196 | 1.0  | 0.7  | 0.7  |
| 7  | 6  | 6  | TCGTTAAAT  | 1197 | 0.9  | 1.0  | 0.9  |
| 4  | 13 | 2  | TGTTTGTATT | 1198 | 3.3  | 0.2  | 0.5  |
| 12 | 4  | 3  | TTAGTCAAAA | 1199 | 0.3  | 0.8  | 0.3  |
| 11 | 4  | 4  | TTGGGGCAAA | 1200 | 0.4  | 1.0  | 0.4  |
| 6  | 6  | 6  | AACTGATAGA | 1201 | 1.0  | 1.0  | 1.0  |
| 4  | 4  | 10 | ACAAAATTGG | 1202 | 1.0  | 2.5  | 2.5  |

Table 5, cont.

|    |    |    |            |      |     |     |     |
|----|----|----|------------|------|-----|-----|-----|
| 10 | 6  | 2  | ACGAAGGAAT | 1203 | 0.6 | 0.3 | 0.2 |
| 6  | 6  | 6  | ACGAGAGATT | 1204 | 1.0 | 1.0 | 1.0 |
| 7  | 6  | 5  | ATGACTGAAC | 1205 | 0.9 | 0.8 | 0.7 |
| 6  | 8  | 4  | ATGGAACAT  | 1206 | 1.3 | 0.5 | 0.7 |
| 7  | 4  | 7  | ATTTGAAGA  | 1207 | 0.6 | 1.8 | 1.0 |
| 3  | 14 | 1  | CAAAGGATCT | 1208 | 4.7 | 0.1 | 0.3 |
| 3  | 7  | 8  | CCTGCCCTAT | 1209 | 2.3 | 1.1 | 2.7 |
| 9  | 6  | 3  | CGACTGCGCC | 1210 | 0.7 | 0.5 | 0.3 |
| 6  | 5  | 7  | CTAACTGGCT | 1211 | 0.8 | 1.4 | 1.2 |
| 9  | 5  | 4  | CTGTTTATGG | 1212 | 0.6 | 0.8 | 0.4 |
| 2  | 5  | 11 | GAAACACATT | 1213 | 2.5 | 2.2 | 5.5 |
| 5  | 5  | 8  | GAACAGACAA | 1214 | 1.0 | 1.6 | 1.6 |
| 5  | 6  | 7  | GAATAAGCTG | 1215 | 1.2 | 1.2 | 1.4 |
| 2  | 8  | 8  | GCAGAATGCT | 1216 | 4.0 | 1.0 | 4.0 |
| 5  | 3  | 10 | GCGTAAGATA | 1217 | 0.6 | 3.3 | 2.0 |
| 6  | 3  | 9  | GGCTCCTTAT | 1218 | 0.5 | 3.0 | 1.5 |
| 2  | 3  | 13 | GGGAGTATGG | 1219 | 1.5 | 4.3 | 6.5 |
| 8  | 3  | 7  | GTTTCTGTGT | 1220 | 0.4 | 2.3 | 0.9 |
| 5  | 12 | 1  | TACACAAGTA | 1221 | 2.4 | 0.1 | 0.2 |
| 10 | 7  | 1  | TATATTTTTT | 1222 | 0.7 | 0.1 | 0.1 |
| 7  | 3  | 8  | TATGGCGTAC | 1223 | 0.4 | 2.7 | 1.1 |
| 2  | 9  | 7  | TCTATTGTCA | 1224 | 4.5 | 0.8 | 3.5 |
| 6  | 6  | 5  | AAAAAGCTAG | 1225 | 1.0 | 0.8 | 0.8 |
| 7  | 2  | 8  | AAACGCCCAT | 1226 | 0.3 | 4.0 | 1.1 |
| 5  | 7  | 5  | AAGTCAATAG | 1227 | 1.4 | 0.7 | 1.0 |
| 4  | 6  | 7  | AATCGTCATA | 1228 | 1.5 | 1.2 | 1.8 |
| 6  | 4  | 7  | ACAAAAATTC | 1229 | 0.7 | 1.8 | 1.2 |
| 7  | 6  | 4  | ACCGCCACCC | 1230 | 0.9 | 0.7 | 0.6 |

Table 5, cont.

|    |    |    |            |      |      |      |     |
|----|----|----|------------|------|------|------|-----|
| 6  | 6  | 5  | ACTTGGAGCC | 1231 | 1.0  | 0.8  | 0.8 |
| 7  | 4  | 6  | AGATGGATC  | 1232 | 0.6  | 1.5  | 0.9 |
| 7  | 7  | 3  | ATCACGCTCT | 1233 | 1.0  | 0.4  | 0.4 |
| 5  | 8  | 4  | ATCCAAGCTG | 1234 | 1.6  | 0.5  | 0.8 |
| 10 | 4  | 3  | ATCGGTCCAG | 1235 | 0.4  | 0.8  | 0.3 |
| 5  | 7  | 5  | ATGACAAAGG | 1236 | 1.4  | 0.7  | 1.0 |
| 9  | 2  | 6  | GAAGTCGGAA | 1237 | 0.2  | 3.0  | 0.7 |
| 1  | 10 | 6  | GAGTGCTGT  | 1238 | 10.0 | 0.6  | 6.0 |
| 4  | 6  | 7  | GCGTTCGCGG | 1239 | 1.5  | 1.2  | 1.8 |
| 4  | 1  | 12 | GGATCGGTTT | 1240 | 0.3  | 12.0 | 3.0 |
| 8  | 1  | 8  | GGATGCTGTG | 1241 | 0.1  | 8.0  | 1.0 |
| 7  | 7  | 3  | GGTTTGGCG  | 1242 | 1.0  | 0.4  | 0.4 |
| 4  | 4  | 9  | GTTCAAGAG  | 1243 | 1.0  | 2.3  | 2.3 |
| 2  | 12 | 3  | TAAGCGGAGT | 1244 | 6.0  | 0.3  | 1.5 |
| 7  | 6  | 4  | TACATTATAC | 1245 | 0.9  | 0.7  | 0.6 |
| 7  | 7  | 3  | TCCAGTGATG | 1246 | 1.0  | 0.4  | 0.4 |
| 3  | 6  | 8  | TCTACCGTCA | 1247 | 2.0  | 1.3  | 2.7 |
| 2  | 8  | 7  | TGGATCTCAA | 1248 | 4.0  | 0.9  | 3.5 |
| 3  | 9  | 5  | TTTATTAATC | 1249 | 3.0  | 0.6  | 1.7 |
| 7  | 8  | 2  | TTTTAAGATA | 1250 | 1.1  | 0.3  | 0.3 |
| 8  | 6  | 2  | AAAAACATAT | 1251 | 0.8  | 0.3  | 0.3 |
| 8  | 1  | 7  | AAAGCTAACA | 1252 | 0.1  | 7.0  | 0.9 |
| 5  | 6  | 5  | AAGGAATTGA | 1253 | 1.2  | 0.8  | 1.0 |
| 2  | 3  | 11 | ACAGTGCAAG | 1254 | 1.5  | 3.7  | 5.5 |
| 8  | 8  | 0  | ACATCTCAAA | 1255 | 1.0  | 0.0  | 0.0 |
| 10 | 1  | 5  | ACATTTTTTA | 1256 | 0.1  | 5.0  | 0.5 |
| 5  | 7  | 4  | ACCCATCGGT | 1257 | 1.4  | 0.6  | 0.8 |
| 3  | 7  | 6  | ACGTAGGTGA | 1258 | 2.3  | 0.9  | 2.0 |

Table 5, cont.

|    |    |   |             |      |         |     |         |
|----|----|---|-------------|------|---------|-----|---------|
| 3  | 12 | 1 | ACITTTAAAA  | 1259 | 4.0     | 0.1 | 0.3     |
| 7  | 3  | 6 | ATCGTGATAA  | 1260 | 0.4     | 2.0 | 0.9     |
| 8  | 4  | 4 | CAAAAGACTG  | 1261 | 0.5     | 1.0 | 0.5     |
| 7  | 4  | 5 | CAAAGAGAAG  | 1262 | 0.6     | 1.3 | 0.7     |
| 6  | 7  | 3 | CACITTTAAT  | 1263 | 1.2     | 0.4 | 0.5     |
| 8  | 3  | 5 | CCACCAATTA  | 1264 | 0.4     | 1.7 | 0.6     |
| 0  | 14 | 2 | CCATACAGGT  | 1265 | #DIV/0! | 0.1 | #DIV/0! |
| 10 | 4  | 2 | CCTGGCGTCA  | 1266 | 0.4     | 0.5 | 0.2     |
| 4  | 5  | 7 | CTGGCTCTAA  | 1267 | 1.3     | 1.4 | 1.8     |
| 9  | 5  | 2 | CITTTGCCATT | 1268 | 0.6     | 0.4 | 0.2     |
| 6  | 4  | 6 | GAACACAAGA  | 1269 | 0.7     | 1.5 | 1.0     |
| 7  | 6  | 3 | GATAAGATTA  | 1270 | 0.9     | 0.5 | 0.4     |
| 4  | 5  | 7 | GATACCTCCT  | 1271 | 1.3     | 1.4 | 1.8     |
| 3  | 7  | 6 | GCTGCCCTATG | 1272 | 2.3     | 0.9 | 2.0     |
| 7  | 6  | 3 | GCITTTGGCTA | 1273 | 0.9     | 0.5 | 0.4     |
| 9  | 2  | 5 | GTCATATGAA  | 1274 | 0.2     | 2.5 | 0.6     |
| 5  | 5  | 6 | GTCGCCGAAG  | 1275 | 1.0     | 1.2 | 1.2     |
| 3  | 11 | 2 | TAAGCAGCGT  | 1276 | 3.7     | 0.2 | 0.7     |
| 8  | 5  | 3 | TATAAGAACT  | 1277 | 0.6     | 0.6 | 0.4     |
| 11 | 4  | 1 | TCATTACATT  | 1278 | 0.4     | 0.3 | 0.1     |
| 8  | 5  | 3 | TCCTCCAGAA  | 1279 | 0.6     | 0.6 | 0.4     |
| 7  | 4  | 5 | TGATTATAAA  | 1280 | 0.6     | 1.3 | 0.7     |
| 7  | 6  | 3 | TGTATGTGAA  | 1281 | 0.9     | 0.5 | 0.4     |
| 4  | 5  | 7 | TTGAGTGAGC  | 1282 | 1.3     | 1.4 | 1.8     |
| 12 | 1  | 3 | TTTTATTTC   | 1283 | 0.1     | 3.0 | 0.3     |
| 6  | 3  | 6 | AGCTTATTGA  | 1284 | 0.5     | 2.0 | 1.0     |
| 7  | 7  | 1 | ATAAAAAAAA  | 1285 | 1.0     | 0.1 | 0.1     |
| 4  | 9  | 2 | ATAACAACAA  | 1286 | 2.3     | 0.2 | 0.5     |

Table 5, cont.

|   |    |   |             |      |     |  |     |     |
|---|----|---|-------------|------|-----|--|-----|-----|
| 7 | 8  | 0 | ATATCAAAA   | 1287 | 1.1 |  | 0.0 | 0.0 |
| 5 | 7  | 3 | ATGCAGATT   | 1288 | 1.4 |  | 0.4 | 0.6 |
| 4 | 8  | 3 | ATGCTGTAT   | 1289 | 2.0 |  | 0.4 | 0.8 |
| 6 | 3  | 6 | ATTGAGTTA   | 1290 | 0.5 |  | 2.0 | 1.0 |
| 4 | 4  | 7 | CAACCAGTTT  | 1291 | 1.0 |  | 1.8 | 1.8 |
| 4 | 5  | 6 | CCAAC TAGAG | 1292 | 1.3 |  | 1.2 | 1.5 |
| 9 | 2  | 4 | CGAACGTAA   | 1293 | 0.2 |  | 2.0 | 0.4 |
| 8 | 4  | 3 | CTTCTATAT   | 1294 | 0.5 |  | 0.8 | 0.4 |
| 6 | 3  | 6 | CTTGGCTGA   | 1295 | 0.5 |  | 2.0 | 1.0 |
| 6 | 5  | 4 | GAAATGGAAG  | 1296 | 0.8 |  | 0.8 | 0.7 |
| 4 | 4  | 7 | GAACCAGCTT  | 1297 | 1.0 |  | 1.8 | 1.8 |
| 6 | 3  | 6 | GAAGTCGCA   | 1298 | 0.5 |  | 2.0 | 1.0 |
| 5 | 5  | 5 | GAATGGGATA  | 1299 | 1.0 |  | 1.0 | 1.0 |
| 1 | 5  | 9 | GAGACTGCTA  | 1300 | 5.0 |  | 1.8 | 9.0 |
| 5 | 3  | 7 | GATAACAAA   | 1301 | 0.6 |  | 2.3 | 1.4 |
| 3 | 6  | 6 | GCTCTAGCGC  | 1302 | 2.0 |  | 1.0 | 2.0 |
| 3 | 6  | 6 | GGATTATACA  | 1303 | 2.0 |  | 1.0 | 2.0 |
| 4 | 3  | 8 | GGTGATGAGG  | 1304 | 0.8 |  | 2.7 | 2.0 |
| 9 | 1  | 5 | GTCCGCCAAA  | 1305 | 0.1 |  | 5.0 | 0.6 |
| 3 | 6  | 6 | GTCGTACAGA  | 1306 | 2.0 |  | 1.0 | 2.0 |
| 5 | 7  | 3 | TAAGAAACAA  | 1307 | 1.4 |  | 0.4 | 0.6 |
| 5 | 5  | 5 | TACACCGCAT  | 1308 | 1.0 |  | 1.0 | 1.0 |
| 4 | 5  | 6 | TGCGGCAACT  | 1309 | 1.3 |  | 1.2 | 1.5 |
| 4 | 7  | 4 | TGCTCTGTGG  | 1310 | 1.8 |  | 0.6 | 1.0 |
| 3 | 5  | 7 | TGGGATAGAC  | 1311 | 1.7 |  | 1.4 | 2.3 |
| 9 | 1  | 5 | TGGTATTAGA  | 1312 | 0.1 |  | 5.0 | 0.6 |
| 2 | 8  | 5 | TTGCAATAAT  | 1313 | 4.0 |  | 0.6 | 2.5 |
| 3 | 11 | 1 | TTGCTGTACG  | 1314 | 3.7 |  | 0.1 | 0.3 |

Table 5, cont.

|    |    |   |            |      |     |         |     |
|----|----|---|------------|------|-----|---------|-----|
| 11 | 3  | 1 | TTTTACGTT  | 1315 | 0.3 | 0.3     | 0.1 |
| 11 | 2  | 2 | TTTTCGCTA  | 1316 | 0.2 | 1.0     | 0.2 |
| 6  | 5  | 3 | AAACGAATT  | 1317 | 0.8 | 0.6     | 0.5 |
| 5  | 6  | 3 | AAAGAACTAA | 1318 | 1.2 | 0.5     | 0.6 |
| 5  | 5  | 4 | AACITACGGG | 1319 | 1.0 | 0.8     | 0.8 |
| 5  | 5  | 4 | ACACCTGCTG | 1320 | 1.0 | 0.8     | 0.8 |
| 2  | 3  | 9 | ACCTGCTCGG | 1321 | 1.5 | 3.0     | 4.5 |
| 7  | 4  | 3 | ACGAAACAT  | 1322 | 0.6 | 0.8     | 0.4 |
| 7  | 2  | 5 | AGGTACATTG | 1323 | 0.3 | 2.5     | 0.7 |
| 13 | 0  | 1 | AGTTCAGAGT | 1324 | 0.0 | #DIV/0! | 0.1 |
| 4  | 1  | 9 | ATTCITGATC | 1325 | 0.3 | 9.0     | 2.3 |
| 1  | 4  | 9 | CACTCCAGAA | 1326 | 4.0 | 2.3     | 9.0 |
| 2  | 9  | 3 | CATTCITCTT | 1327 | 4.5 | 0.3     | 1.5 |
| 5  | 6  | 3 | CATTTGTGTA | 1328 | 1.2 | 0.5     | 0.6 |
| 3  | 6  | 5 | CCAAATCAAA | 1329 | 2.0 | 0.8     | 1.7 |
| 5  | 4  | 5 | CCACCACTTC | 1330 | 0.8 | 1.3     | 1.0 |
| 3  | 6  | 5 | CCTTAGTAGT | 1331 | 2.0 | 0.8     | 1.7 |
| 4  | 3  | 7 | CGAGAGGCC  | 1332 | 0.8 | 2.3     | 1.8 |
| 2  | 11 | 1 | CGCAAAATT  | 1333 | 5.5 | 0.1     | 0.5 |
| 5  | 4  | 5 | CTTTCGCAAC | 1334 | 0.8 | 1.3     | 1.0 |
| 5  | 7  | 2 | GAAGTTTCC  | 1335 | 1.4 | 0.3     | 0.4 |
| 5  | 4  | 5 | GAATTGTCAT | 1336 | 0.8 | 1.3     | 1.0 |
| 3  | 5  | 6 | GCAAGCTCGA | 1337 | 1.7 | 1.2     | 2.0 |
| 4  | 5  | 5 | GCGATGTGTA | 1338 | 1.3 | 1.0     | 1.3 |
| 4  | 5  | 5 | GGGTGGTATA | 1339 | 1.3 | 1.0     | 1.3 |
| 6  | 5  | 3 | GGGTCTTCC  | 1340 | 0.8 | 0.6     | 0.5 |
| 7  | 5  | 2 | GGTCGTTGAT | 1341 | 0.7 | 0.4     | 0.3 |
| 4  | 3  | 7 | GTAGGTGATG | 1342 | 0.8 | 2.3     | 1.8 |

Table 5, cont.

|    |   |    |            |      |     |      |     |
|----|---|----|------------|------|-----|------|-----|
| 1  | 5 | 8  | GTCATTAACG | 1343 | 5.0 | 1.6  | 8.0 |
| 8  | 4 | 2  | TAAAAAAA   | 1344 | 0.5 | 0.5  | 0.3 |
| 3  | 8 | 3  | TATATCTCG  | 1345 | 2.7 | 0.4  | 1.0 |
| 4  | 5 | 5  | TTAATTGCT  | 1346 | 1.3 | 1.0  | 1.3 |
| 9  | 4 | 1  | TTACTAGCCA | 1347 | 0.4 | 0.3  | 0.1 |
| 4  | 4 | 6  | TTAGTGAAGT | 1348 | 1.0 | 1.5  | 1.5 |
| 6  | 3 | 5  | TTGCACGGTA | 1349 | 0.5 | 1.7  | 0.8 |
| 2  | 2 | 10 | TTTGGTGGCG | 1350 | 1.0 | 5.0  | 5.0 |
| 4  | 6 | 4  | TTTGTCCAC  | 1351 | 1.5 | 0.7  | 1.0 |
| 5  | 3 | 5  | AACAAGTTGG | 1352 | 0.6 | 1.7  | 1.0 |
| 6  | 1 | 6  | AACGCTTGGG | 1353 | 0.2 | 6.0  | 1.0 |
| 3  | 4 | 6  | AAGAAGACCA | 1354 | 1.3 | 1.5  | 2.0 |
| 5  | 4 | 4  | AAGCGGTACT | 1355 | 0.8 | 1.0  | 0.8 |
| 5  | 8 | 0  | AATGAATATC | 1356 | 1.6 | 0.0  | 0.0 |
| 2  | 8 | 3  | ACGGTCTTAC | 1357 | 4.0 | 0.4  | 1.5 |
| 8  | 2 | 3  | AGGCAAAATT | 1358 | 0.3 | 1.5  | 0.4 |
| 3  | 2 | 8  | AGGGAAGTAA | 1359 | 0.7 | 4.0  | 2.7 |
| 6  | 6 | 1  | ATCTACGCTA | 1360 | 1.0 | 0.2  | 0.2 |
| 4  | 3 | 6  | ATTAACCTCG | 1361 | 0.8 | 2.0  | 1.5 |
| 3  | 2 | 8  | CATCAGCAAC | 1362 | 0.7 | 4.0  | 2.7 |
| 2  | 5 | 6  | CCACCTCAAT | 1363 | 2.5 | 1.2  | 3.0 |
| 5  | 2 | 6  | CCTTCAAAAT | 1364 | 0.4 | 3.0  | 1.2 |
| 5  | 2 | 6  | CTAAAGACGA | 1365 | 0.4 | 3.0  | 1.2 |
| 11 | 2 | 0  | CTACGGACGA | 1366 | 0.2 | 0.0  | 0.0 |
| 3  | 6 | 4  | GAAACTCTC  | 1367 | 2.0 | 0.7  | 1.3 |
| 6  | 4 | 3  | GAAATACGGC | 1368 | 0.7 | 0.8  | 0.5 |
| 3  | 3 | 7  | GAACGAGTAA | 1369 | 1.0 | 2.3  | 2.3 |
| 2  | 1 | 10 | GAAGAAGTGG | 1370 | 0.5 | 10.0 | 5.0 |

Table 5, cont.

|   |   |    |            |      |         |         |         |
|---|---|----|------------|------|---------|---------|---------|
| 4 | 4 | 5  | GAAGAGAATG | 1371 | 1.0     | 1.3     | 1.3     |
| 5 | 6 | 2  | GAGACACCCA | 1372 | 1.2     | 0.3     | 0.4     |
| 9 | 3 | 1  | GCAATGTAA  | 1373 | 0.3     | 0.3     | 0.1     |
| 6 | 4 | 3  | GCACAAGCTC | 1374 | 0.7     | 0.8     | 0.5     |
| 3 | 3 | 7  | GGAGAAATCG | 1375 | 1.0     | 2.3     | 2.3     |
| 4 | 2 | 7  | GGCTCAAG   | 1376 | 0.5     | 3.5     | 1.8     |
| 2 | 6 | 5  | GGCGAGATGC | 1377 | 3.0     | 0.8     | 2.5     |
| 2 | 7 | 4  | GGCTCTCGT  | 1378 | 3.5     | 0.6     | 2.0     |
| 8 | 2 | 3  | GGTTCCCGAG | 1379 | 0.3     | 1.5     | 0.4     |
| 5 | 4 | 4  | GTTCTACAGA | 1380 | 0.8     | 1.0     | 0.8     |
| 4 | 6 | 3  | GTTGCCAGAA | 1381 | 1.5     | 0.5     | 0.8     |
| 5 | 3 | 5  | GTTGTGGGAT | 1382 | 0.6     | 1.7     | 1.0     |
| 0 | 9 | 4  | TCCTTCAGTA | 1383 | #DIV/0! | 0.4     | #DIV/0! |
| 6 | 7 | 0  | TGAACAAATA | 1384 | 1.2     | 0.0     | 0.0     |
| 4 | 4 | 5  | TGCTAAGAAC | 1385 | 1.0     | 1.3     | 1.3     |
| 1 | 0 | 12 | TGGCAAACT  | 1386 | 0.0     | #DIV/0! | 12.0    |
| 3 | 6 | 4  | TTTCAAGATG | 1387 | 2.0     | 0.7     | 1.3     |
| 3 | 3 | 7  | TTCCGCGGA  | 1388 | 1.0     | 2.3     | 2.3     |
| 5 | 6 | 2  | TTTTCTTTT  | 1389 | 1.2     | 0.3     | 0.4     |
| 5 | 1 | 6  | AAAATCACA  | 1390 | 0.2     | 6.0     | 1.2     |
| 2 | 7 | 3  | AAACAATTTA | 1391 | 3.5     | 0.4     | 1.5     |
| 6 | 3 | 3  | AAATAGGGTC | 1392 | 0.5     | 1.0     | 0.5     |
| 5 | 3 | 4  | AAATGGGACT | 1393 | 0.6     | 1.3     | 0.8     |
| 2 | 7 | 3  | AACGCTTTTC | 1394 | 3.5     | 0.4     | 1.5     |
| 8 | 1 | 3  | AAGATTAGAT | 1395 | 0.1     | 3.0     | 0.4     |
| 3 | 6 | 3  | AAGCATAAAA | 1396 | 2.0     | 0.5     | 1.0     |
| 4 | 4 | 4  | AAGGATAAAA | 1397 | 1.0     | 1.0     | 1.0     |
| 6 | 4 | 2  | AGAAAAGTAT | 1398 | 0.7     | 0.5     | 0.3     |



Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 4 | 7 | 1 | AGCCTATTTA | 1399 | 1.8     | 0.1     | 0.3     |
| 1 | 3 | 8 | AGCTCTCTTA | 1400 | 3.0     | 2.7     | 8.0     |
| 2 | 2 | 8 | AGGGACTGTT | 1401 | 1.0     | 4.0     | 4.0     |
| 8 | 3 | 1 | ATAAAATTTT | 1402 | 0.4     | 0.3     | 0.1     |
| 5 | 3 | 4 | ATGGTTACTA | 1403 | 0.6     | 1.3     | 0.8     |
| 5 | 2 | 5 | CAAGTTTGT  | 1404 | 0.4     | 2.5     | 1.0     |
| 3 | 5 | 4 | CAATGAACCG | 1405 | 1.7     | 0.8     | 1.3     |
| 1 | 5 | 6 | CATACACTGA | 1406 | 5.0     | 1.2     | 6.0     |
| 3 | 6 | 3 | CATATGGCCA | 1407 | 2.0     | 0.5     | 1.0     |
| 3 | 6 | 3 | CATCATTGAT | 1408 | 2.0     | 0.5     | 1.0     |
| 2 | 9 | 1 | CGGGATATCC | 1409 | 4.5     | 0.1     | 0.5     |
| 3 | 3 | 6 | CTCACAAAA  | 1410 | 1.0     | 2.0     | 2.0     |
| 3 | 4 | 5 | CTGCAGCTGA | 1411 | 1.3     | 1.3     | 1.7     |
| 4 | 2 | 6 | CTGGCAAAA  | 1412 | 0.5     | 3.0     | 1.5     |
| 1 | 8 | 3 | CTTGTGGTTT | 1413 | 8.0     | 0.4     | 3.0     |
| 6 | 3 | 3 | GAATCCAAA  | 1414 | 0.5     | 1.0     | 0.5     |
| 4 | 5 | 3 | GAAGCCTTCT | 1415 | 1.3     | 0.6     | 0.8     |
| 3 | 9 | 0 | GAATAAAAAG | 1416 | 3.0     | 0.0     | 0.0     |
| 8 | 2 | 2 | GACGACAAAC | 1417 | 0.3     | 1.0     | 0.3     |
| 3 | 4 | 5 | GAGGATAGAG | 1418 | 1.3     | 1.3     | 1.7     |
| 3 | 0 | 9 | GATGTCGACG | 1419 | 0.0     | #DIV/0! | 3.0     |
| 6 | 4 | 2 | GATGTGGTGA | 1420 | 0.7     | 0.5     | 0.3     |
| 4 | 3 | 5 | GATTCATCA  | 1421 | 0.8     | 1.7     | 1.3     |
| 3 | 4 | 5 | GCATCTTGT  | 1422 | 1.3     | 1.3     | 1.7     |
| 4 | 3 | 5 | GCTTGAACAA | 1423 | 0.8     | 1.7     | 1.3     |
| 5 | 3 | 4 | GGAGAGAGTG | 1424 | 0.6     | 1.3     | 0.8     |
| 9 | 0 | 3 | GGCATCCGCC | 1425 | 0.0     | #DIV/0! | 0.3     |
| 0 | 9 | 3 | GTCGAGACA  | 1426 | #DIV/0! | 0.3     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |     |         |
|---|---|---|-------------|------|---------|-----|---------|
| 6 | 2 | 4 | GTTTCGAAA   | 1427 | 0.3     | 2.0 | 0.7     |
| 7 | 3 | 2 | TAATTACTAG  | 1428 | 0.4     | 0.7 | 0.3     |
| 5 | 6 | 1 | TATAAATTAC  | 1429 | 1.2     | 0.2 | 0.2     |
| 4 | 2 | 6 | TATCGCTGGT  | 1430 | 0.5     | 3.0 | 1.5     |
| 4 | 6 | 2 | TATGCTGTGA  | 1431 | 1.5     | 0.3 | 0.5     |
| 6 | 5 | 1 | TCAAGTTTCA  | 1432 | 0.8     | 0.2 | 0.2     |
| 0 | 9 | 3 | TCCCGTACT   | 1433 | #DIV/0! | 0.3 | #DIV/0! |
| 4 | 6 | 2 | TCCTATTAAAG | 1434 | 1.5     | 0.3 | 0.5     |
| 8 | 1 | 3 | TCTACTTTGA  | 1435 | 0.1     | 3.0 | 0.4     |
| 7 | 4 | 1 | TGAAGAAGCT  | 1436 | 0.6     | 0.3 | 0.1     |
| 2 | 5 | 5 | TGAATGACTC  | 1437 | 2.5     | 1.0 | 2.5     |
| 4 | 2 | 6 | TTAGAGAGAC  | 1438 | 0.5     | 3.0 | 1.5     |
| 5 | 3 | 4 | TTACAGTACT  | 1439 | 0.6     | 1.3 | 0.8     |
| 7 | 5 | 0 | TTTTCTTTT   | 1440 | 0.7     | 0.0 | 0.0     |
| 4 | 2 | 5 | AACTTTTGG   | 1441 | 0.5     | 2.5 | 1.3     |
| 2 | 4 | 5 | AAATGCAAAA  | 1442 | 2.0     | 1.3 | 2.5     |
| 5 | 4 | 2 | AATTCGAACA  | 1443 | 0.8     | 0.5 | 0.4     |
| 2 | 7 | 2 | ACCAGTGATG  | 1444 | 3.5     | 0.3 | 1.0     |
| 3 | 7 | 1 | ACCGATAACG  | 1445 | 2.3     | 0.1 | 0.3     |
| 6 | 1 | 4 | ACTCCGGGCG  | 1446 | 0.2     | 4.0 | 0.7     |
| 2 | 4 | 5 | ACTGCTGGTA  | 1447 | 2.0     | 1.3 | 2.5     |
| 3 | 4 | 4 | ACTTTTTCGC  | 1448 | 1.3     | 1.0 | 1.3     |
| 2 | 4 | 5 | AGATGCTCAT  | 1449 | 2.0     | 1.3 | 2.5     |
| 1 | 1 | 8 | AGATTGCCAC  | 1450 | 1.0     | 9.0 | 9.0     |
| 1 | 4 | 6 | AGTTAGGCAC  | 1451 | 4.0     | 1.5 | 6.0     |
| 6 | 3 | 2 | ATCTTTTICA  | 1452 | 0.5     | 0.7 | 0.3     |
| 4 | 4 | 3 | ATTTTTTGAT  | 1453 | 1.0     | 0.8 | 0.8     |
| 6 | 2 | 3 | CACATTTTCA  | 1454 | 0.3     | 1.5 | 0.5     |

Table 5, cont.

|   |   |    |             |      |         |         |         |
|---|---|----|-------------|------|---------|---------|---------|
| 2 | 1 | 8  | CACTCTGGAC  | 1455 | 0.5     | 8.0     | 4.0     |
| 4 | 2 | 5  | CAGCTAAAGA  | 1456 | 0.5     | 2.5     | 1.3     |
| 1 | 1 | 9  | CATTGCAAG   | 1457 | 1.0     | 9.0     | 9.0     |
| 8 | 2 | 1  | CCCTAATTAA  | 1458 | 0.3     | 0.5     | 0.1     |
| 4 | 5 | 2  | CCCTATTAAAG | 1459 | 1.3     | 0.4     | 0.5     |
| 1 | 5 | 5  | CGCCTCCAGT  | 1460 | 5.0     | 1.0     | 5.0     |
| 3 | 0 | 8  | CGGTGTAAGA  | 1461 | 0.0     | #DIV/0! | 2.7     |
| 1 | 4 | 6  | CTAAGAAGGT  | 1462 | 4.0     | 1.5     | 6.0     |
| 1 | 2 | 8  | CTGAACAAAG  | 1463 | 2.0     | 4.0     | 8.0     |
| 3 | 5 | 3  | CTGATGGTAG  | 1464 | 1.7     | 0.6     | 1.0     |
| 7 | 1 | 3  | CTGCTCAATT  | 1465 | 0.1     | 3.0     | 0.4     |
| 4 | 5 | 2  | CTGGAGGGGA  | 1466 | 1.3     | 0.4     | 0.5     |
| 3 | 3 | 5  | CTGGCAAAGT  | 1467 | 1.0     | 1.7     | 1.7     |
| 7 | 2 | 2  | CTTGATCTCA  | 1468 | 0.3     | 1.0     | 0.3     |
| 6 | 4 | 1  | GAATTTGCT   | 1469 | 0.7     | 0.3     | 0.2     |
| 3 | 4 | 4  | GACAAITCAA  | 1470 | 1.3     | 1.0     | 1.3     |
| 0 | 4 | 7  | GAGGAAAGCT  | 1471 | #DIV/0! | 1.8     | #DIV/0! |
| 5 | 6 | 0  | GATTAGATTA  | 1472 | 1.2     | 0.0     | 0.0     |
| 7 | 3 | 1  | GATTAAACT   | 1473 | 0.4     | 0.3     | 0.1     |
| 5 | 1 | 5  | GCAAGAAGGA  | 1474 | 0.2     | 5.0     | 1.0     |
| 1 | 3 | 7  | GCATCGTCAT  | 1475 | 3.0     | 2.3     | 7.0     |
| 3 | 6 | 2  | GCTACTTGTC  | 1476 | 2.0     | 0.3     | 0.7     |
| 1 | 4 | 6  | GCTGAGAAAC  | 1477 | 4.0     | 1.5     | 6.0     |
| 1 | 4 | 6  | GGCAATAGAT  | 1478 | 4.0     | 1.5     | 6.0     |
| 1 | 0 | 10 | GGGAAAGCTA  | 1479 | 0.0     | #DIV/0! | 10.0    |
| 4 | 5 | 2  | GGTGAACGCT  | 1480 | 1.3     | 0.4     | 0.5     |
| 4 | 1 | 6  | GGTTCCGGTT  | 1481 | 0.3     | 6.0     | 1.5     |
| 5 | 2 | 4  | GTGACACGCT  | 1482 | 0.4     | 2.0     | 0.8     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 8 | 3 | TACGTAAGTT  | 1483 | #DIV/0! | 0.4     | #DIV/0! |
| 8 | 2 | 1 | TACTGAGATA  | 1484 | 0.3     | 0.5     | 0.1     |
| 4 | 2 | 5 | TAGATGTTAC  | 1485 | 0.5     | 2.5     | 1.3     |
| 6 | 0 | 5 | TAGCTGCAAA  | 1486 | 0.0     | #DIV/0! | 0.8     |
| 6 | 4 | 1 | TATAATGAAA  | 1487 | 0.7     | 0.3     | 0.2     |
| 4 | 4 | 3 | TCGCCCTTTA  | 1488 | 1.0     | 0.8     | 0.8     |
| 4 | 0 | 7 | TCTCCTAAGA  | 1489 | 0.0     | #DIV/0! | 1.8     |
| 4 | 7 | 0 | TCTTTATATA  | 1490 | 1.8     | 0.0     | 0.0     |
| 4 | 1 | 6 | TGACAAGTCC  | 1491 | 0.3     | 6.0     | 1.5     |
| 6 | 4 | 1 | TGATTTTAAAT | 1492 | 0.7     | 0.3     | 0.2     |
| 2 | 5 | 4 | TGTTTTCCG   | 1493 | 2.5     | 0.8     | 2.0     |
| 3 | 2 | 6 | TTATCGTTGA  | 1494 | 0.7     | 3.0     | 2.0     |
| 2 | 9 | 0 | TTCTAGAAATG | 1495 | 4.5     | 0.0     | 0.0     |
| 4 | 6 | 1 | TTTAATTGGT  | 1496 | 1.5     | 0.2     | 0.3     |
| 2 | 5 | 4 | TTTCCATTGC  | 1497 | 2.5     | 0.8     | 2.0     |
| 2 | 5 | 3 | AAAAATTGTT  | 1498 | 2.5     | 0.6     | 1.5     |
| 6 | 0 | 4 | AAAGCCGCCT  | 1499 | 0.0     | #DIV/0! | 0.7     |
| 4 | 5 | 1 | AACTTAGTTT  | 1500 | 1.3     | 0.2     | 0.3     |
| 3 | 1 | 6 | AAGAGATTCA  | 1501 | 0.3     | 6.0     | 2.0     |
| 1 | 3 | 6 | AAGAGTCACA  | 1502 | 3.0     | 2.0     | 6.0     |
| 9 | 0 | 1 | AAGGAACTAT  | 1503 | 0.0     | #DIV/0! | 0.1     |
| 5 | 1 | 4 | AAGGCGTTCC  | 1504 | 0.2     | 4.0     | 0.8     |
| 7 | 1 | 2 | AATTGAAATA  | 1505 | 0.1     | 2.0     | 0.3     |
| 1 | 8 | 1 | ACCACCACCA  | 1506 | 8.0     | 0.1     | 1.0     |
| 3 | 3 | 4 | ACCCAGAAAT  | 1507 | 1.0     | 1.3     | 1.3     |
| 3 | 5 | 2 | ACGACATAGA  | 1508 | 1.7     | 0.4     | 0.7     |
| 2 | 6 | 2 | ACTCAAATTT  | 1509 | 3.0     | 0.3     | 1.0     |
| 2 | 5 | 3 | AGAATTGAGT  | 1510 | 2.5     | 0.6     | 1.5     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 3 | 7 | AGACAGTAG  | 1511 | #DIV/0! | 2.3     | #DIV/0! |
| 4 | 5 | 1 | AGGAACTCG  | 1512 | 1.3     | 0.2     | 0.3     |
| 2 | 5 | 3 | AGGCAAAAC  | 1513 | 2.5     | 0.6     | 1.5     |
| 1 | 6 | 3 | AGTAGATTCA | 1514 | 6.0     | 0.5     | 3.0     |
| 6 | 0 | 4 | ATGAAGAAAC | 1515 | 0.0     | #DIV/0! | 0.7     |
| 7 | 3 | 0 | ATTTAGTTT  | 1516 | 0.4     | 0.0     | 0.0     |
| 1 | 6 | 3 | CAATGGCCCA | 1517 | 6.0     | 0.5     | 3.0     |
| 5 | 2 | 3 | CAGCAGGTTT | 1518 | 0.4     | 1.5     | 0.6     |
| 4 | 4 | 2 | CAGGAGCTAA | 1519 | 1.0     | 0.5     | 0.5     |
| 3 | 4 | 3 | CAGTTGCTGC | 1520 | 1.3     | 0.8     | 1.0     |
| 3 | 3 | 4 | CATATGTATG | 1521 | 1.0     | 1.3     | 1.3     |
| 3 | 6 | 1 | CCAGGTCTG  | 1522 | 2.0     | 0.2     | 0.3     |
| 4 | 1 | 5 | CCCCATTTC  | 1523 | 0.3     | 5.0     | 1.3     |
| 2 | 1 | 7 | CCGTTACCTC | 1524 | 0.5     | 7.0     | 3.5     |
| 2 | 4 | 4 | CTGATCAAGG | 1525 | 2.0     | 1.0     | 2.0     |
| 3 | 6 | 1 | CTGGAATTAT | 1526 | 2.0     | 0.2     | 0.3     |
| 5 | 3 | 2 | GAAAAAATA  | 1527 | 0.6     | 0.7     | 0.4     |
| 5 | 4 | 1 | GACGGCGCCG | 1528 | 0.8     | 0.3     | 0.2     |
| 3 | 2 | 5 | GAGAACATTA | 1529 | 0.7     | 2.5     | 1.7     |
| 4 | 5 | 1 | GAGCAATCCA | 1530 | 1.3     | 0.2     | 0.3     |
| 2 | 4 | 4 | GATCACCGAC | 1531 | 2.0     | 1.0     | 2.0     |
| 2 | 4 | 4 | GCAACAAAAG | 1532 | 2.0     | 1.0     | 2.0     |
| 1 | 4 | 5 | GCAATGGCTG | 1533 | 4.0     | 1.3     | 5.0     |
| 2 | 3 | 5 | GCAGGTGCTG | 1534 | 1.5     | 1.7     | 2.5     |
| 6 | 2 | 2 | GCAGTAGAAG | 1535 | 0.3     | 1.0     | 0.3     |
| 3 | 6 | 1 | GCGAAAGAGC | 1536 | 2.0     | 0.2     | 0.3     |
| 0 | 5 | 5 | GCGCCTCCAA | 1537 | #DIV/0! | 1.0     | #DIV/0! |
| 4 | 5 | 1 | GCGCTGAAGA | 1538 | 1.3     | 0.2     | 0.3     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 6 | 2 | 2 | 2 | GGTGAAACG  | 1539 | 0.3     | 1.0     | 0.3     |
| 1 | 6 | 3 | 3 | GCTCCGTCGT | 1540 | 6.0     | 0.5     | 3.0     |
| 2 | 4 | 4 | 4 | GGATAATAA  | 1541 | 2.0     | 1.0     | 2.0     |
| 4 | 2 | 4 | 4 | GGATATTACC | 1542 | 0.5     | 2.0     | 1.0     |
| 0 | 9 | 1 | 1 | GGCAACACCT | 1543 | #DIV/0! | 0.1     | #DIV/0! |
| 3 | 4 | 3 | 3 | GGCCACTAGT | 1544 | 1.3     | 0.8     | 1.0     |
| 4 | 4 | 2 | 2 | GGCCGATAAA | 1545 | 1.0     | 0.5     | 0.5     |
| 3 | 0 | 7 | 7 | GGGTGTTAAC | 1546 | 0.0     | #DIV/0! | 2.3     |
| 4 | 4 | 2 | 2 | GGTGGATTCT | 1547 | 1.0     | 0.5     | 0.5     |
| 3 | 3 | 4 | 4 | GTAATTTC   | 1548 | 1.0     | 1.3     | 1.3     |
| 4 | 2 | 4 | 4 | GTGTCGGACG | 1549 | 0.5     | 2.0     | 1.0     |
| 2 | 2 | 6 | 6 | GTGGTGAAT  | 1550 | 1.0     | 3.0     | 3.0     |
| 4 | 1 | 5 | 5 | GTGGTTTG   | 1551 | 0.3     | 5.0     | 1.3     |
| 1 | 6 | 3 | 3 | TACATAAAGT | 1552 | 6.0     | 0.5     | 3.0     |
| 4 | 4 | 2 | 2 | TACCCGTAGA | 1553 | 1.0     | 0.5     | 0.5     |
| 7 | 1 | 2 | 2 | TATGAAGGAC | 1554 | 0.1     | 2.0     | 0.3     |
| 9 | 1 | 0 | 0 | TCATTCAAGT | 1555 | 0.1     | 0.0     | 0.0     |
| 5 | 4 | 1 | 1 | TCCCCGACAT | 1556 | 0.8     | 0.3     | 0.2     |
| 4 | 3 | 3 | 3 | TCTCTGACAG | 1557 | 0.8     | 1.0     | 0.8     |
| 3 | 3 | 4 | 4 | TCTGCGCTCT | 1558 | 1.0     | 1.3     | 1.3     |
| 1 | 4 | 5 | 5 | TGATAGCCAT | 1559 | 4.0     | 1.3     | 5.0     |
| 1 | 0 | 9 | 9 | TGATTGTCGG | 1560 | 0.0     | #DIV/0! | 9.0     |
| 1 | 1 | 8 | 8 | TGCCAGACTC | 1561 | 1.0     | 8.0     | 8.0     |
| 3 | 5 | 2 | 2 | TGCTGAATTG | 1562 | 1.7     | 0.4     | 0.7     |
| 2 | 2 | 6 | 6 | TGGCTGAGGA | 1563 | 1.0     | 3.0     | 3.0     |
| 3 | 3 | 4 | 4 | TGGTTGCTTA | 1584 | 1.0     | 1.3     | 1.3     |
| 3 | 4 | 3 | 3 | TTACGTTTAG | 1565 | 1.3     | 0.8     | 1.0     |
| 2 | 5 | 3 | 3 | TTATCAGAGG | 1566 | 2.5     | 0.6     | 1.5     |

Table 5, cont.

|   |   |   |   |      |         |     |         |
|---|---|---|---|------|---------|-----|---------|
| 2 | 4 | 4 | 4 | 1567 | 2.0     | 1.0 | 2.0     |
| 3 | 6 | 1 | 1 | 1568 | 2.0     | 0.2 | 0.3     |
| 1 | 3 | 6 | 1 | 1569 | 3.0     | 2.0 | 6.0     |
| 7 | 2 | 1 | 1 | 1570 | 0.3     | 0.5 | 0.1     |
| 1 | 7 | 2 | 2 | 1571 | 7.0     | 0.3 | 2.0     |
| 3 | 5 | 2 | 2 | 1572 | 1.7     | 0.4 | 0.7     |
| 3 | 4 | 3 | 3 | 1573 | 1.3     | 0.8 | 1.0     |
| 0 | 5 | 5 | 5 | 1574 | #DIV/0! | 1.0 | #DIV/0! |
| 4 | 4 | 2 | 2 | 1575 | 1.0     | 0.5 | 0.5     |
| 3 | 3 | 3 | 3 | 1576 | 1.0     | 1.0 | 1.0     |
| 2 | 1 | 6 | 6 | 1577 | 0.5     | 6.0 | 3.0     |
| 1 | 5 | 3 | 3 | 1578 | 5.0     | 0.6 | 3.0     |
| 7 | 2 | 0 | 0 | 1579 | 0.3     | 0.0 | 0.0     |
| 2 | 3 | 4 | 4 | 1580 | 1.5     | 1.3 | 2.0     |
| 3 | 1 | 5 | 5 | 1581 | 0.3     | 5.0 | 1.7     |
| 2 | 2 | 5 | 5 | 1582 | 1.0     | 2.5 | 2.5     |
| 3 | 3 | 3 | 3 | 1583 | 1.0     | 1.0 | 1.0     |
| 3 | 3 | 3 | 3 | 1584 | 1.0     | 1.0 | 1.0     |
| 1 | 6 | 2 | 2 | 1585 | 6.0     | 0.3 | 2.0     |
| 4 | 3 | 2 | 2 | 1586 | 0.8     | 0.7 | 0.5     |
| 3 | 2 | 4 | 4 | 1587 | 0.7     | 2.0 | 1.3     |
| 2 | 3 | 4 | 4 | 1588 | 1.5     | 1.3 | 2.0     |
| 3 | 2 | 4 | 4 | 1589 | 0.7     | 2.0 | 1.3     |
| 3 | 4 | 2 | 2 | 1590 | 1.3     | 0.5 | 0.7     |
| 2 | 6 | 1 | 1 | 1591 | 3.0     | 0.2 | 0.5     |
| 4 | 2 | 3 | 3 | 1592 | 0.5     | 1.5 | 0.8     |
| 3 | 3 | 3 | 3 | 1593 | 1.0     | 1.0 | 1.0     |
| 2 | 5 | 2 | 2 | 1594 | 2.5     | 0.4 | 1.0     |

Table 5, cont.

|   |   |   |            |      |     |         |     |
|---|---|---|------------|------|-----|---------|-----|
| 1 | 6 | 2 | AGGAGTCATC | 1595 | 6.0 | 0.3     | 2.0 |
| 3 | 4 | 2 | ATATTGTTC  | 1596 | 1.3 | 0.5     | 0.7 |
| 3 | 3 | 3 | ATCTGTATT  | 1597 | 1.0 | 1.0     | 1.0 |
| 1 | 5 | 3 | ATGCTGCCCA | 1598 | 5.0 | 0.6     | 3.0 |
| 3 | 1 | 5 | ATTCAGATT  | 1599 | 0.3 | 5.0     | 1.7 |
| 3 | 3 | 3 | ATTTTGTGT  | 1600 | 1.0 | 1.0     | 1.0 |
| 1 | 7 | 1 | CATATATATT | 1601 | 7.0 | 0.1     | 1.0 |
| 2 | 5 | 2 | CCTTTGAAGA | 1602 | 2.5 | 0.4     | 1.0 |
| 3 | 3 | 3 | CGAATAAAA  | 1603 | 1.0 | 1.0     | 1.0 |
| 1 | 2 | 6 | CGAGAGAGGT | 1604 | 2.0 | 3.0     | 6.0 |
| 3 | 3 | 3 | CGCATATGCT | 1605 | 1.0 | 1.0     | 1.0 |
| 5 | 3 | 1 | CGCCTCCCTC | 1606 | 0.6 | 0.3     | 0.2 |
| 3 | 3 | 3 | CGGGGTATCG | 1607 | 1.0 | 1.0     | 1.0 |
| 3 | 2 | 4 | CGGTAATCC  | 1608 | 0.7 | 2.0     | 1.3 |
| 2 | 7 | 0 | CTTATATAAA | 1609 | 3.5 | 0.0     | 0.0 |
| 1 | 5 | 3 | GAATAGGTA  | 1610 | 5.0 | 0.6     | 3.0 |
| 1 | 5 | 3 | GAACCATATT | 1611 | 5.0 | 0.6     | 3.0 |
| 4 | 1 | 4 | GAAGGATTGG | 1612 | 0.3 | 4.0     | 1.0 |
| 3 | 2 | 4 | GACACTTTTA | 1613 | 0.7 | 2.0     | 1.3 |
| 2 | 4 | 3 | GACGCACGTT | 1614 | 2.0 | 0.8     | 1.5 |
| 1 | 4 | 4 | GACTATTGT  | 1615 | 4.0 | 1.0     | 4.0 |
| 2 | 3 | 4 | GAGTGTTTAC | 1616 | 1.5 | 1.3     | 2.0 |
| 3 | 2 | 4 | GATCCAGACG | 1617 | 0.7 | 2.0     | 1.3 |
| 4 | 0 | 5 | GATGGTAGTG | 1618 | 0.0 | #DIV/0! | 1.3 |
| 2 | 2 | 5 | GCACAGAATT | 1619 | 1.0 | 2.5     | 2.5 |
| 7 | 1 | 1 | GCCGTGGAAG | 1620 | 0.1 | 1.0     | 0.1 |
| 1 | 5 | 3 | GCCTTACAAA | 1621 | 5.0 | 0.6     | 3.0 |
| 2 | 3 | 4 | GCGAAACAGG | 1622 | 1.5 | 1.3     | 2.0 |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 4 | 4 | 4 | GCTAAGAACC  | 1623 | 4.0     | 1.0     | 4.0     |
| 2 | 5 | 2 | 2 | GCTCTATAC   | 1624 | 2.5     | 0.4     | 1.0     |
| 5 | 2 | 2 | 2 | GGATGCAGAA  | 1625 | 0.4     | 1.0     | 0.4     |
| 2 | 1 | 6 | 6 | GGCGCAATTT  | 1626 | 0.5     | 6.0     | 3.0     |
| 1 | 1 | 7 | 7 | GGCTAGGTTT  | 1627 | 1.0     | 7.0     | 7.0     |
| 4 | 3 | 2 | 2 | GGCTTACCIT  | 1628 | 0.8     | 0.7     | 0.5     |
| 2 | 4 | 3 | 3 | GGGAAGAGCT  | 1629 | 2.0     | 0.8     | 1.5     |
| 0 | 2 | 7 | 7 | GGTGTACGA   | 1630 | #DIV/0! | 3.5     | #DIV/0! |
| 3 | 3 | 3 | 3 | GTATAGCTCA  | 1631 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 6 | 6 | GTCACCAATG  | 1632 | 0.5     | 6.0     | 3.0     |
| 3 | 4 | 2 | 2 | GTCGTCGCCA  | 1633 | 1.3     | 0.5     | 0.7     |
| 4 | 1 | 4 | 4 | GTGATGAACT  | 1634 | 0.3     | 4.0     | 1.0     |
| 5 | 0 | 4 | 4 | GTGCTGCCTC  | 1635 | 0.0     | #DIV/0! | 0.8     |
| 5 | 3 | 1 | 1 | GTCCCAATTG  | 1636 | 0.6     | 0.3     | 0.2     |
| 5 | 2 | 2 | 2 | GTTGGACGGT  | 1637 | 0.4     | 1.0     | 0.4     |
| 1 | 6 | 2 | 2 | GTTTCTATAT  | 1638 | 6.0     | 0.3     | 2.0     |
| 6 | 3 | 0 | 0 | TAAGTGATGA  | 1639 | 0.5     | 0.0     | 0.0     |
| 5 | 3 | 1 | 1 | TATCTATTTT  | 1640 | 0.6     | 0.3     | 0.2     |
| 4 | 2 | 3 | 3 | TCAAGGAACT  | 1641 | 0.5     | 1.5     | 0.8     |
| 4 | 4 | 1 | 1 | TCCCCGTAAT  | 1642 | 1.0     | 0.3     | 0.3     |
| 0 | 9 | 0 | 0 | TCGTTAAAAG  | 1643 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 3 | 3 | 3 | TGCATATATG  | 1644 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 7 | 7 | TGCTTTGAAT  | 1645 | #DIV/0! | 3.5     | #DIV/0! |
| 1 | 2 | 6 | 6 | TGGCCTTCAA  | 1646 | 2.0     | 3.0     | 6.0     |
| 2 | 3 | 4 | 4 | TGGCGGACAT  | 1647 | 1.5     | 1.3     | 2.0     |
| 3 | 4 | 2 | 2 | TGGGTCAC TG | 1648 | 1.3     | 0.5     | 0.7     |
| 4 | 4 | 1 | 1 | TGTATACAAA  | 1649 | 1.0     | 0.3     | 0.3     |
| 4 | 2 | 3 | 3 | TGTCCTCAAT  | 1650 | 0.5     | 1.5     | 0.8     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 3 | 4 | 2 | TTAATTCATC  | 1651 | 1.3     | 0.5     | 0.7     |
| 5 | 2 | 2 | TTGAGGAACG  | 1652 | 0.4     | 1.0     | 0.4     |
| 2 | 3 | 4 | TTGTCCGCAC  | 1653 | 1.5     | 1.3     | 2.0     |
| 3 | 4 | 2 | TTGTTGAATT  | 1654 | 1.3     | 0.5     | 0.7     |
| 4 | 2 | 3 | TTTAAGAAGA  | 1655 | 0.5     | 1.5     | 0.8     |
| 0 | 6 | 2 | AAAAGTCGTT  | 1656 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 5 | 2 | AAATTAGGTA  | 1657 | 5.0     | 0.4     | 2.0     |
| 5 | 0 | 3 | AAGCTGAATT  | 1658 | 0.0     | #DIV/0! | 0.6     |
| 4 | 2 | 2 | AAGCTGCTGA  | 1659 | 0.5     | 1.0     | 0.5     |
| 4 | 4 | 0 | AAGGACTTGT  | 1660 | 1.0     | 0.0     | 0.0     |
| 3 | 3 | 2 | AATAAAAAAA  | 1661 | 1.0     | 0.7     | 0.7     |
| 3 | 1 | 4 | AATATAGAAA  | 1662 | 0.3     | 4.0     | 1.3     |
| 2 | 6 | 0 | AATCAATTTA  | 1663 | 3.0     | 0.0     | 0.0     |
| 3 | 3 | 2 | AATTTCCITT  | 1664 | 1.0     | 0.7     | 0.7     |
| 2 | 3 | 3 | ACAAAGATGA  | 1665 | 1.5     | 1.0     | 1.5     |
| 2 | 5 | 1 | ACATATGTTA  | 1666 | 2.5     | 0.2     | 0.5     |
| 3 | 3 | 2 | ACCTGTGTAC  | 1667 | 1.0     | 0.7     | 0.7     |
| 0 | 2 | 6 | ACGACAACTT  | 1668 | #DIV/0! | 3.0     | #DIV/0! |
| 3 | 3 | 2 | AGACAAAACC  | 1669 | 1.0     | 0.7     | 0.7     |
| 1 | 1 | 6 | AGCAGGAGTT  | 1670 | 1.0     | 6.0     | 6.0     |
| 3 | 4 | 1 | ATAAATTTTC  | 1671 | 1.3     | 0.3     | 0.3     |
| 0 | 5 | 3 | ATCACCAAAAG | 1672 | #DIV/0! | 0.6     | #DIV/0! |
| 2 | 1 | 5 | ATCAGACAAA  | 1673 | 0.5     | 5.0     | 2.5     |
| 1 | 4 | 3 | ATCAGATGGG  | 1674 | 4.0     | 0.8     | 3.0     |
| 4 | 3 | 1 | ATCCTAGAAA  | 1675 | 0.8     | 0.3     | 0.3     |
| 0 | 2 | 6 | ATGAAGGTCC  | 1676 | #DIV/0! | 3.0     | #DIV/0! |
| 1 | 5 | 2 | ATGAAGTCGT  | 1677 | 5.0     | 0.4     | 2.0     |
| 1 | 5 | 2 | ATGACCAACC  | 1678 | 5.0     | 0.4     | 2.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 3 | 3 | 2 | 2 | ATGATCAACC  | 1679 | 1.0     | 0.7     | 0.7     |
| 2 | 2 | 4 | 4 | ATGATCGGGA  | 1680 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 6 | 6 | ATGCTCGGCT  | 1681 | 1.0     | 6.0     | 6.0     |
| 2 | 3 | 3 | 3 | ATGCTTTACC  | 1682 | 1.5     | 1.0     | 1.5     |
| 4 | 2 | 2 | 2 | ATGGACAGTG  | 1683 | 0.5     | 1.0     | 0.5     |
| 2 | 3 | 3 | 3 | ATGGCACCGA  | 1684 | 1.5     | 1.0     | 1.5     |
| 2 | 4 | 2 | 2 | ATGGGGCAGC  | 1685 | 2.0     | 0.5     | 1.0     |
| 2 | 2 | 4 | 4 | ATCGTTCTA   | 1686 | 1.0     | 2.0     | 2.0     |
| 3 | 3 | 2 | 2 | CAAAAAAAA   | 1687 | 1.0     | 0.7     | 0.7     |
| 4 | 2 | 2 | 2 | CAATAGTTT   | 1688 | 0.5     | 1.0     | 0.5     |
| 2 | 2 | 4 | 4 | CAAGTAGCAA  | 1689 | 1.0     | 2.0     | 2.0     |
| 2 | 4 | 2 | 2 | CACAAGAATA  | 1690 | 2.0     | 0.5     | 1.0     |
| 6 | 1 | 1 | 1 | CAGAAAAGAA  | 1691 | 0.2     | 1.0     | 0.2     |
| 3 | 1 | 4 | 4 | CCATTGCTC   | 1692 | 0.3     | 4.0     | 1.3     |
| 5 | 1 | 2 | 2 | CCCCTTGATA  | 1693 | 0.2     | 2.0     | 0.4     |
| 1 | 4 | 3 | 3 | CCCTACACGG  | 1694 | 4.0     | 0.8     | 3.0     |
| 2 | 5 | 1 | 1 | CGACGGGAGT  | 1695 | 2.5     | 0.2     | 0.5     |
| 2 | 2 | 4 | 4 | CTAGCCGCAT  | 1696 | 1.0     | 2.0     | 2.0     |
| 4 | 2 | 2 | 2 | CTATTCGTTG  | 1697 | 0.5     | 1.0     | 0.5     |
| 3 | 3 | 2 | 2 | CTTCGACGGC  | 1698 | 1.0     | 0.7     | 0.7     |
| 1 | 5 | 2 | 2 | GAAAGAACGA  | 1699 | 5.0     | 0.4     | 2.0     |
| 4 | 0 | 4 | 4 | GAAATTATTC  | 1700 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 7 | 7 | GAAGCAGTAA  | 1701 | 0.0     | #DIV/0! | 7.0     |
| 4 | 2 | 2 | 2 | GACAACTTCA  | 1702 | 0.5     | 1.0     | 0.5     |
| 1 | 5 | 2 | 2 | GACAAATTCAT | 1703 | 5.0     | 0.4     | 2.0     |
| 4 | 2 | 2 | 2 | GAGGCTGGTT  | 1704 | 0.5     | 1.0     | 0.5     |
| 5 | 0 | 3 | 3 | GATTTTATT   | 1705 | 0.0     | #DIV/0! | 0.6     |
| 0 | 3 | 5 | 5 | GCAAGAAAAA  | 1706 | #DIV/0! | 1.7     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 2 | 4 | 2 | GCATAAATAC | 1707 | 2.0     | 0.5     | 1.0     |
| 4 | 1 | 3 | GCATTTTTC  | 1708 | 0.3     | 3.0     | 0.8     |
| 0 | 5 | 3 | GCCAAGGAAT | 1709 | #DIV/0! | 0.6     | #DIV/0! |
| 0 | 5 | 3 | GCCTACAAC  | 1710 | #DIV/0! | 0.6     | #DIV/0! |
| 2 | 5 | 1 | GCGTAATGAC | 1711 | 2.5     | 0.2     | 0.5     |
| 1 | 5 | 2 | GGCCACCTAT | 1712 | 5.0     | 0.4     | 2.0     |
| 3 | 0 | 5 | GGTACAGTTG | 1713 | 0.0     | #DIV/0! | 1.7     |
| 2 | 3 | 3 | GGTACCAACT | 1714 | 1.5     | 1.0     | 1.5     |
| 3 | 1 | 4 | GGTGGATACC | 1715 | 0.3     | 4.0     | 1.3     |
| 3 | 3 | 2 | GTAATACTTT | 1716 | 1.0     | 0.7     | 0.7     |
| 1 | 5 | 2 | GTAATTGGAC | 1717 | 5.0     | 0.4     | 2.0     |
| 0 | 5 | 3 | GTACCTCAT  | 1718 | #DIV/0! | 0.6     | #DIV/0! |
| 1 | 6 | 1 | GTCAAGGTTT | 1719 | 6.0     | 0.2     | 1.0     |
| 1 | 4 | 3 | GTCCATCGGC | 1720 | 4.0     | 0.8     | 3.0     |
| 4 | 2 | 2 | GTCGTCAAGC | 1721 | 0.5     | 1.0     | 0.5     |
| 4 | 1 | 3 | GTCTAACTG  | 1722 | 0.3     | 3.0     | 0.8     |
| 2 | 2 | 4 | GTGATGGATG | 1723 | 1.0     | 2.0     | 2.0     |
| 4 | 2 | 2 | GTGATTTTCC | 1724 | 0.5     | 1.0     | 0.5     |
| 2 | 2 | 4 | GTATTGTGC  | 1725 | 1.0     | 2.0     | 2.0     |
| 3 | 4 | 1 | GTTTTTCTT  | 1726 | 1.3     | 0.3     | 0.3     |
| 1 | 4 | 3 | TAAATGTGTC | 1727 | 4.0     | 0.8     | 3.0     |
| 2 | 3 | 3 | TAACAAAAGT | 1728 | 1.5     | 1.0     | 1.5     |
| 2 | 4 | 2 | TAACAGCGTA | 1729 | 2.0     | 0.5     | 1.0     |
| 5 | 3 | 0 | TAACATATAT | 1730 | 0.6     | 0.0     | 0.0     |
| 4 | 2 | 2 | TACATATTAT | 1731 | 0.5     | 1.0     | 0.5     |
| 0 | 5 | 3 | TACGTGTATT | 1732 | #DIV/0! | 0.6     | #DIV/0! |
| 6 | 1 | 1 | TACTACATAC | 1733 | 0.2     | 1.0     | 0.2     |
| 2 | 4 | 2 | TACTACTAAA | 1734 | 2.0     | 0.5     | 1.0     |

Table 5, cont.

|   |   |   |             |      |         |     |         |
|---|---|---|-------------|------|---------|-----|---------|
| 5 | 2 | 1 | TACTATTGAA  | 1735 | 0.4     | 0.5 | 0.2     |
| 2 | 3 | 3 | TAGATGCATC  | 1736 | 1.5     | 1.0 | 1.5     |
| 1 | 7 | 0 | TAGTTTTTTT  | 1737 | 7.0     | 0.0 | 0.0     |
| 2 | 5 | 1 | TATGGTAAAT  | 1738 | 2.5     | 0.2 | 0.5     |
| 0 | 3 | 5 | TATGTATCTG  | 1739 | #DIV/0! | 1.7 | #DIV/0! |
| 3 | 5 | 0 | TCAAACATCC  | 1740 | 1.7     | 0.0 | 0.0     |
| 0 | 6 | 2 | TCAGCTAATT  | 1741 | #DIV/0! | 0.3 | #DIV/0! |
| 1 | 1 | 6 | TCATTTGACT  | 1742 | 1.0     | 6.0 | 6.0     |
| 2 | 3 | 3 | TCCAAATTC   | 1743 | 1.5     | 1.0 | 1.5     |
| 3 | 5 | 0 | TCCAGAACCA  | 1744 | 1.7     | 0.0 | 0.0     |
| 3 | 3 | 2 | TCCCAATTAAG | 1745 | 1.0     | 0.7 | 0.7     |
| 1 | 6 | 1 | TCGTACCTTT  | 1746 | 6.0     | 0.2 | 1.0     |
| 1 | 3 | 4 | TCTCTCCATT  | 1747 | 3.0     | 1.3 | 4.0     |
| 3 | 4 | 1 | TGCTGCTGAA  | 1748 | 1.3     | 0.3 | 0.3     |
| 5 | 3 | 0 | TGTATGTATA  | 1749 | 0.6     | 0.0 | 0.0     |
| 2 | 2 | 4 | TGTGCGTATA  | 1750 | 1.0     | 2.0 | 2.0     |
| 4 | 4 | 0 | TTACACTAAA  | 1751 | 1.0     | 0.0 | 0.0     |
| 0 | 7 | 1 | TTATGAAAGA  | 1752 | #DIV/0! | 0.1 | #DIV/0! |
| 0 | 6 | 2 | TTACCCCTTC  | 1753 | #DIV/0! | 0.3 | #DIV/0! |
| 2 | 3 | 3 | TTCAGCAGGA  | 1754 | 1.5     | 1.0 | 1.5     |
| 3 | 2 | 3 | TTCGTCTTTT  | 1755 | 0.7     | 1.5 | 1.0     |
| 2 | 5 | 1 | TTCTTGATGA  | 1756 | 2.5     | 0.2 | 0.5     |
| 1 | 2 | 5 | TTTGAATCTG  | 1757 | 2.0     | 2.5 | 5.0     |
| 2 | 4 | 2 | TTTGGCAGAA  | 1758 | 2.0     | 0.5 | 1.0     |
| 3 | 4 | 1 | TTTGGTGCTG  | 1759 | 1.3     | 0.3 | 0.3     |
| 3 | 5 | 0 | TTTTTCAAAA  | 1760 | 1.7     | 0.0 | 0.0     |
| 3 | 4 | 0 | AAAGACATAT  | 1761 | 1.3     | 0.0 | 0.0     |
| 1 | 4 | 2 | AAAGAGGGAA  | 1762 | 4.0     | 0.5 | 2.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 3 | 2 | 2 | 2 | AAAGTTC TAG | 1763 | 0.7     | 1.0     | 0.7     |
| 5 | 1 | 1 | 1 | AACAAC TCA  | 1764 | 0.2     | 1.0     | 0.2     |
| 1 | 3 | 3 | 3 | AACAGG CATC | 1765 | 3.0     | 1.0     | 3.0     |
| 2 | 2 | 3 | 3 | AACATT ACTT | 1766 | 1.0     | 1.5     | 1.5     |
| 0 | 6 | 1 | 1 | AAGAGCAACG  | 1767 | #DIV/0! | 0.2     | #DIV/0! |
| 0 | 4 | 3 | 3 | AAGCTGAGGA  | 1768 | #DIV/0! | 0.8     | #DIV/0! |
| 1 | 2 | 4 | 4 | AAGTGAAGGA  | 1769 | 2.0     | 2.0     | 4.0     |
| 4 | 2 | 1 | 1 | AATACACTTT  | 1770 | 0.5     | 0.5     | 0.3     |
| 2 | 2 | 3 | 3 | AATGCTCCAG  | 1771 | 1.0     | 1.5     | 1.5     |
| 3 | 3 | 1 | 1 | AATTAGTGGA  | 1772 | 1.0     | 0.3     | 0.3     |
| 2 | 2 | 3 | 3 | ACAATGAATT  | 1773 | 1.0     | 1.5     | 1.5     |
| 1 | 3 | 3 | 3 | ACCACTTGGA  | 1774 | 3.0     | 1.0     | 3.0     |
| 0 | 5 | 2 | 2 | ACCATOCACG  | 1775 | #DIV/0! | 0.4     | #DIV/0! |
| 0 | 0 | 7 | 7 | ACGAAATCC   | 1776 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 2 | 3 | 3 | ACTATCGAAG  | 1777 | 1.0     | 1.5     | 1.5     |
| 2 | 1 | 4 | 4 | ACTTGGCAAA  | 1778 | 0.5     | 4.0     | 2.0     |
| 4 | 1 | 2 | 2 | AGAACTTCGT  | 1779 | 0.3     | 2.0     | 0.5     |
| 2 | 4 | 1 | 1 | AGAATTGGTT  | 1780 | 2.0     | 0.3     | 0.5     |
| 3 | 1 | 3 | 3 | AGACGAACTG  | 1781 | 0.3     | 3.0     | 1.0     |
| 5 | 1 | 1 | 1 | AGAGCTTTTA  | 1782 | 0.2     | 1.0     | 0.2     |
| 0 | 0 | 7 | 7 | AGCAAAC TGT | 1783 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 6 | 6 | AGCGTCCTCA  | 1784 | 0.0     | #DIV/0! | 6.0     |
| 1 | 2 | 4 | 4 | AGCTCATTTG  | 1785 | 2.0     | 2.0     | 4.0     |
| 3 | 1 | 3 | 3 | AGGATGAAGA  | 1786 | 0.3     | 3.0     | 1.0     |
| 4 | 2 | 1 | 1 | AGTGATTCTC  | 1787 | 0.5     | 0.5     | 0.3     |
| 4 | 0 | 3 | 3 | ATACCTTGGT  | 1788 | 0.0     | #DIV/0! | 0.8     |
| 1 | 4 | 2 | 2 | ATAGCACCAA  | 1789 | 4.0     | 0.5     | 2.0     |
| 4 | 0 | 3 | 3 | ATAGGAAAGC  | 1790 | 0.0     | #DIV/0! | 0.8     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 2 | 5 | 0 | ATAGTAACGA | 1791 | 2.5     | 0.0     | 0.0     |
| 2 | 3 | 2 | ATAGTAAGGT | 1792 | 1.5     | 0.7     | 1.0     |
| 3 | 2 | 2 | ATATCAAACA | 1793 | 0.7     | 1.0     | 0.7     |
| 1 | 4 | 2 | ATCTTGTCGT | 1794 | 4.0     | 0.5     | 2.0     |
| 0 | 7 | 0 | ATGCTGAACC | 1795 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 6 | ATGCTGGTAG | 1796 | 0.0     | #DIV/0! | 6.0     |
| 5 | 1 | 1 | ATGTCGCCTC | 1797 | 0.2     | 1.0     | 0.2     |
| 4 | 2 | 1 | ATGTTTCTTA | 1798 | 0.5     | 0.5     | 0.3     |
| 2 | 2 | 3 | ATTCAAGATA | 1799 | 1.0     | 1.5     | 1.5     |
| 2 | 3 | 2 | ATTGAATGAA | 1800 | 1.5     | 0.7     | 1.0     |
| 2 | 0 | 5 | ATTGCATCTC | 1801 | 0.0     | #DIV/0! | 2.5     |
| 0 | 6 | 1 | CAAAGCCATC | 1802 | #DIV/0! | 0.2     | #DIV/0! |
| 4 | 1 | 2 | CAATAAGGG  | 1803 | 0.3     | 2.0     | 0.5     |
| 1 | 3 | 3 | CAACTGTTGA | 1804 | 3.0     | 1.0     | 3.0     |
| 1 | 5 | 1 | CAAGACAGTT | 1805 | 5.0     | 0.2     | 1.0     |
| 0 | 5 | 2 | CACAGCATCA | 1806 | #DIV/0! | 0.4     | #DIV/0! |
| 4 | 1 | 2 | CACATCTATA | 1807 | 0.3     | 2.0     | 0.5     |
| 4 | 1 | 2 | CAGAGTTTGA | 1808 | 0.3     | 2.0     | 0.5     |
| 2 | 4 | 1 | CAGATATAAT | 1809 | 2.0     | 0.3     | 0.5     |
| 3 | 1 | 3 | CAGCAAATAA | 1810 | 0.3     | 3.0     | 1.0     |
| 1 | 3 | 3 | CAGCAGTGCA | 1811 | 3.0     | 1.0     | 3.0     |
| 4 | 2 | 1 | CATACTTTCA | 1812 | 0.5     | 0.5     | 0.3     |
| 5 | 2 | 0 | CATTTTGTAG | 1813 | 0.4     | 0.0     | 0.0     |
| 3 | 3 | 1 | CATTTTATG  | 1814 | 1.0     | 0.3     | 0.3     |
| 1 | 3 | 3 | CCAAAAGGCA | 1815 | 3.0     | 1.0     | 3.0     |
| 2 | 4 | 1 | CCAAAAGGGA | 1816 | 2.0     | 0.3     | 0.5     |
| 1 | 3 | 3 | CCCTCCCTAA | 1817 | 3.0     | 1.0     | 3.0     |
| 3 | 3 | 1 | CCGACTACAT | 1818 | 1.0     | 0.3     | 0.3     |

Table 5, cont.

|   |   |   |             |      |     |         |     |
|---|---|---|-------------|------|-----|---------|-----|
| 2 | 1 | 4 | CCGTTCCGAA  | 1819 | 0.5 | 4.0     | 2.0 |
| 1 | 6 | 0 | CGCTTGCTAT  | 1820 | 6.0 | 0.0     | 0.0 |
| 4 | 1 | 2 | CGGTTCTACC  | 1821 | 0.3 | 2.0     | 0.5 |
| 2 | 2 | 3 | CTAAAGAGCC  | 1822 | 1.0 | 1.5     | 1.5 |
| 2 | 1 | 4 | CTAAGCAGGA  | 1823 | 0.5 | 4.0     | 2.0 |
| 2 | 0 | 5 | CTAGTTTTC   | 1824 | 0.0 | #DIV/0! | 2.5 |
| 3 | 3 | 1 | CTATTATAAA  | 1825 | 1.0 | 0.3     | 0.3 |
| 2 | 3 | 2 | CTCATTTTAA  | 1826 | 1.5 | 0.7     | 1.0 |
| 2 | 2 | 3 | CTGCGAAAAG  | 1827 | 1.0 | 1.5     | 1.5 |
| 3 | 1 | 3 | CTGTTTCTGA  | 1828 | 0.3 | 3.0     | 1.0 |
| 2 | 0 | 5 | CTGTTTGGG   | 1829 | 0.0 | #DIV/0! | 2.5 |
| 2 | 4 | 1 | CTTGCAGAAG  | 1830 | 2.0 | 0.3     | 0.5 |
| 1 | 4 | 2 | GAAAATAGCA  | 1831 | 4.0 | 0.5     | 2.0 |
| 1 | 1 | 5 | GAAAGTGATG  | 1832 | 1.0 | 5.0     | 5.0 |
| 4 | 0 | 3 | GAACGGTTGT  | 1833 | 0.0 | #DIV/0! | 0.8 |
| 5 | 1 | 1 | GAAGACCTAC  | 1834 | 0.2 | 1.0     | 0.2 |
| 1 | 2 | 4 | GAAGATTGTA  | 1835 | 2.0 | 2.0     | 4.0 |
| 2 | 1 | 4 | GAAGTGGACG  | 1836 | 0.5 | 4.0     | 2.0 |
| 4 | 2 | 1 | GAATACTGCA  | 1837 | 0.5 | 0.5     | 0.3 |
| 4 | 2 | 1 | GACAAGCTAT  | 1838 | 0.5 | 0.5     | 0.3 |
| 1 | 5 | 1 | GACAGTCAGT  | 1839 | 5.0 | 0.2     | 1.0 |
| 3 | 3 | 1 | GACCCCTTCCT | 1840 | 1.0 | 0.3     | 0.3 |
| 1 | 3 | 3 | GACGATAGTG  | 1841 | 3.0 | 1.0     | 3.0 |
| 2 | 3 | 2 | GAGCTTTTGG  | 1842 | 1.5 | 0.7     | 1.0 |
| 3 | 1 | 3 | GATAGTTTAG  | 1843 | 0.3 | 3.0     | 1.0 |
| 2 | 4 | 1 | GATTAAGACA  | 1844 | 2.0 | 0.3     | 0.5 |
| 5 | 2 | 0 | GCAAAATAGT  | 1845 | 0.4 | 0.0     | 0.0 |
| 4 | 0 | 3 | GCAAAGCAAA  | 1846 | 0.0 | #DIV/0! | 0.8 |



Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 4 | 1 | 2 | GCAAGTCGCA | 1847 | 0.3     | 2.0     | 0.5     |
| 3 | 1 | 3 | GCATAATCTG | 1848 | 0.3     | 3.0     | 1.0     |
| 2 | 3 | 2 | GCATACGCTG | 1849 | 1.5     | 0.7     | 1.0     |
| 3 | 4 | 0 | GCCGCATTGG | 1850 | 1.3     | 0.0     | 0.0     |
| 4 | 1 | 2 | GCCGGCTGGC | 1851 | 0.3     | 2.0     | 0.5     |
| 1 | 2 | 4 | GCGTCAAGAT | 1852 | 2.0     | 2.0     | 4.0     |
| 0 | 6 | 1 | GCTATGAATT | 1853 | #DIV/0! | 0.2     | #DIV/0! |
| 2 | 2 | 3 | GCTATGTACA | 1854 | 1.0     | 1.5     | 1.5     |
| 4 | 1 | 2 | GCTTGTTTTC | 1855 | 0.3     | 2.0     | 0.5     |
| 3 | 2 | 2 | GGAATAATAC | 1856 | 0.7     | 1.0     | 0.7     |
| 1 | 3 | 3 | GGAATCAGC  | 1857 | 3.0     | 1.0     | 3.0     |
| 2 | 0 | 5 | GGATGCAATC | 1858 | 0.0     | #DIV/0! | 2.5     |
| 2 | 2 | 3 | GGATGGCTCG | 1859 | 1.0     | 1.5     | 1.5     |
| 2 | 2 | 3 | GGGAAGAACT | 1860 | 1.0     | 1.5     | 1.5     |
| 2 | 1 | 4 | GGTAGTGGCA | 1861 | 0.5     | 4.0     | 2.0     |
| 0 | 3 | 4 | GGTCTCATCC | 1862 | #DIV/0! | 1.3     | #DIV/0! |
| 3 | 2 | 2 | GGTGCTAACG | 1863 | 0.7     | 1.0     | 0.7     |
| 2 | 1 | 4 | GGTGCTAACG | 1864 | 0.5     | 4.0     | 2.0     |
| 1 | 2 | 4 | GGTGTTACCG | 1865 | 2.0     | 2.0     | 4.0     |
| 2 | 2 | 3 | GGTGTTGGTA | 1866 | 1.0     | 1.5     | 1.5     |
| 5 | 2 | 0 | GGTTGGACA  | 1867 | 0.4     | 0.0     | 0.0     |
| 3 | 0 | 4 | GGTTGGCTA  | 1868 | 0.0     | #DIV/0! | 1.3     |
| 2 | 0 | 5 | GGTTGGTTT  | 1869 | 0.0     | #DIV/0! | 2.5     |
| 2 | 5 | 0 | GTAATAACGA | 1870 | 2.5     | 0.0     | 0.0     |
| 2 | 3 | 2 | GTACAAGGGT | 1871 | 1.5     | 0.7     | 1.0     |
| 2 | 1 | 4 | GTAGACCAAC | 1872 | 0.5     | 4.0     | 2.0     |
| 2 | 2 | 3 | GTATCAGAAA | 1873 | 1.0     | 1.5     | 1.5     |
| 0 | 4 | 3 | GTCTACCCTG | 1874 | #DIV/0! | 0.8     | #DIV/0! |

Table 5, cont.

|   |   |    |            |      |         |         |         |
|---|---|----|------------|------|---------|---------|---------|
| 6 | 1 | 0  | GTGATTCCTA | 1875 | 0.2     | 0.0     | 0.0     |
| 4 | 0 | 3  | GTGATTTGTC | 1876 | 0.0     | #DIV/0! | 0.0     |
| 2 | 4 | 1  | GTGGTTAAAA | 1877 | 2.0     | 0.3     | 0.8     |
| 4 | 1 | 2  | GTGTAGAGAA | 1878 | 0.3     | 2.0     | 0.5     |
| 2 | 4 | 1  | GTGTAGGATA | 1879 | 2.0     | 0.3     | 0.5     |
| 1 | 3 | 3  | GTGTTCTGT  | 1880 | 3.0     | 1.0     | 3.0     |
| 2 | 1 | 4  | GTGAGGAAC  | 1881 | 0.5     | 4.0     | 2.0     |
| 0 | 5 | 2  | GTGGCTGTT  | 1882 | #DIV/0! | 0.4     | #DIV/0! |
| 5 | 2 | 0  | TAACTATT   | 1883 | 0.4     | 0.0     | 0.0     |
| 2 | 1 | 4  | TAAAGTGAAT | 1884 | 0.5     | 4.0     | 2.0     |
| 2 | 2 | 3  | TAAATAGTGC | 1885 | 1.0     | 1.5     | 1.5     |
| 1 | 2 | 4  | TAACTTGA   | 1886 | 2.0     | 2.0     | 4.0     |
| 1 | 3 | 3  | TAAGCCCATC | 1887 | 3.0     | 1.0     | 3.0     |
| 2 | 1 | 4  | TAACTCCCG  | 1888 | 0.5     | 4.0     | 2.0     |
| 2 | 5 | 0  | TACCCTATTA | 1889 | 2.5     | 0.0     | 0.0     |
| 6 | 1 | 0  | TACCGCCCTT | 1890 | 0.2     | 0.0     | 0.0     |
| 5 | 2 | 0  | TACCGTTAA  | 1891 | 0.4     | 0.0     | 0.0     |
| 5 | 1 | 1  | TATAGAGTTT | 1892 | 0.2     | 1.0     | 0.2     |
| 4 | 2 | 1  | TATCTCTTGT | 1893 | 0.5     | 0.5     | 0.3     |
| 3 | 3 | 1  | TATTGGTAGA | 1894 | 1.0     | 0.3     | 0.3     |
| 2 | 5 | 0  | TCAATTGGAG | 1895 | 2.5     | 0.0     | 0.0     |
| 4 | 0 | 3  | TCAATTTGAA | 1896 | 0.0     | #DIV/0! | 0.8     |
| 4 | 2 | 1  | TCACITTTTT | 1897 | 0.5     | 0.5     | 0.3     |
| 1 | 1 | .5 | TCCATAGTAA | 1898 | 1.0     | 5.0     | 5.0     |
| 3 | 3 | 1  | TCCCCCGTAC | 1899 | 1.0     | 0.3     | 0.3     |
| 3 | 4 | 0  | TCCCCTACAT | 1900 | 1.3     | 0.0     | 0.0     |
| 2 | 3 | 2  | TCCTGATTAT | 1901 | 1.5     | 0.7     | 1.0     |
| 3 | 1 | 3  | TCTGTGAAC  | 1902 | 0.3     | 3.0     | 1.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 3 | 3 | 3 | TCITACAATA | 1903 | 3.0     | 1.0     | 3.0     |
| 0 | 5 | 2 | 2 | TGGATTTCAG | 1904 | #DIV/0! | 0.4     | #DIV/0! |
| 1 | 2 | 4 | 4 | TGGCACCTCA | 1905 | 2.0     | 2.0     | 4.0     |
| 1 | 4 | 2 | 2 | TGGGAGTCGT | 1906 | 4.0     | 0.5     | 2.0     |
| 2 | 3 | 2 | 2 | TGTACCTGTA | 1907 | 1.5     | 0.7     | 1.0     |
| 1 | 4 | 2 | 2 | TGTTTTTAC  | 1908 | 4.0     | 0.5     | 2.0     |
| 1 | 5 | 1 | 1 | TAAACAAA   | 1909 | 5.0     | 0.2     | 1.0     |
| 1 | 3 | 3 | 3 | TAAACACAGA | 1910 | 3.0     | 1.0     | 3.0     |
| 6 | 1 | 0 | 0 | TAAATGACAC | 1911 | 0.2     | 0.0     | 0.0     |
| 1 | 6 | 0 | 0 | TAGTTTTGG  | 1912 | 6.0     | 0.0     | 0.0     |
| 4 | 2 | 1 | 1 | TTATGTAGAT | 1913 | 0.5     | 0.5     | 0.3     |
| 1 | 5 | 1 | 1 | TTATTTTCGT | 1914 | 5.0     | 0.2     | 1.0     |
| 2 | 2 | 3 | 3 | TTCCACCCGT | 1915 | 1.0     | 1.5     | 1.5     |
| 1 | 4 | 2 | 2 | TTCTATTAGG | 1916 | 4.0     | 0.5     | 2.0     |
| 1 | 3 | 3 | 3 | TTGAAAAAAA | 1917 | 3.0     | 1.0     | 3.0     |
| 2 | 2 | 3 | 3 | TTGAAAAGAT | 1918 | 1.0     | 1.5     | 1.5     |
| 3 | 3 | 1 | 1 | TTGAAAATTT | 1919 | 1.0     | 0.3     | 0.3     |
| 0 | 4 | 3 | 3 | TTGCCAGTCC | 1920 | #DIV/0! | 0.8     | #DIV/0! |
| 3 | 2 | 2 | 2 | TTGCTGGAAG | 1921 | 0.7     | 1.0     | 0.7     |
| 7 | 0 | 0 | 0 | TTGGTATGAT | 1922 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 5 | 5 | TTGTCITTCC | 1923 | 1.0     | 5.0     | 5.0     |
| 0 | 4 | 3 | 3 | TTGTGCCCAT | 1924 | #DIV/0! | 0.8     | #DIV/0! |
| 3 | 2 | 2 | 2 | TTTTCTAGAA | 1925 | 0.7     | 1.0     | 0.7     |
| 7 | 0 | 0 | 0 | TTTTTGATGA | 1926 | 0.0     | #DIV/0! | 0.0     |
| 1 | 2 | 3 | 3 | AAAAGGCGT  | 1927 | 2.0     | 1.5     | 3.0     |
| 1 | 5 | 0 | 0 | AAACGTAAC  | 1928 | 5.0     | 0.0     | 0.0     |
| 2 | 3 | 1 | 1 | AAAAGTTTAA | 1929 | 1.5     | 0.3     | 0.5     |
| 3 | 1 | 2 | 2 | AAAATGCAAA | 1930 | 0.3     | 2.0     | 0.7     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 3 | 2 | 1 | AAAGAAGATG | 1931 | 0.7     | 0.5     | 0.3     |
| 0 | 4 | 2 | AAAGATGGGA | 1932 | #DIV/0! | 0.5     | #DIV/0! |
| 4 | 1 | 1 | AAATTAGATA | 1933 | 0.3     | 1.0     | 0.3     |
| 3 | 3 | 0 | AACAAATTGA | 1934 | 1.0     | 0.0     | 0.0     |
| 1 | 4 | 1 | AACAACAACA | 1935 | 4.0     | 0.3     | 1.0     |
| 2 | 2 | 2 | AACGGCCAAA | 1936 | 1.0     | 1.0     | 1.0     |
| 3 | 1 | 2 | AACGGCCAGA | 1937 | 0.3     | 2.0     | 0.7     |
| 2 | 3 | 1 | AACGTAACTA | 1938 | 1.5     | 0.3     | 0.5     |
| 2 | 3 | 1 | AACTTTGGC  | 1939 | 1.5     | 0.3     | 0.5     |
| 0 | 2 | 4 | AAGAAAGGAT | 1940 | #DIV/0! | 2.0     | #DIV/0! |
| 3 | 1 | 2 | AAGACCAAGA | 1941 | 0.3     | 2.0     | 0.7     |
| 3 | 1 | 2 | AAGACTGTGG | 1942 | 0.3     | 2.0     | 0.7     |
| 0 | 1 | 5 | AAGCGATGAG | 1943 | #DIV/0! | 5.0     | #DIV/0! |
| 6 | 0 | 0 | AAGGCAGGGT | 1944 | 0.0     | #DIV/0! | 0.0     |
| 1 | 3 | 2 | AAGGTGCCAG | 1945 | 3.0     | 0.7     | 2.0     |
| 1 | 3 | 2 | AAGTGCAAAA | 1946 | 3.0     | 0.7     | 2.0     |
| 1 | 2 | 3 | AAGTGTGGC  | 1947 | 2.0     | 1.5     | 3.0     |
| 1 | 1 | 4 | AATATGCCGC | 1948 | 1.0     | 4.0     | 4.0     |
| 3 | 1 | 2 | AATCTCAAAA | 1949 | 0.3     | 2.0     | 0.7     |
| 1 | 0 | 5 | AATGACACTT | 1950 | 0.0     | #DIV/0! | 5.0     |
| 2 | 3 | 1 | AATGTGTAAT | 1951 | 1.5     | 0.3     | 0.5     |
| 3 | 2 | 1 | AATTAGACTA | 1952 | 0.7     | 0.5     | 0.3     |
| 3 | 3 | 0 | ACAATAACT  | 1953 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 2 | ACAAGAAAGT | 1954 | 1.0     | 1.0     | 1.0     |
| 4 | 0 | 2 | ACAAGATTTA | 1955 | 0.0     | #DIV/0! | 0.5     |
| 4 | 1 | 1 | ACACTATTTC | 1956 | 0.3     | 1.0     | 0.3     |
| 2 | 0 | 4 | ACAGCAAACG | 1957 | 0.0     | #DIV/0! | 2.0     |
| 0 | 1 | 5 | ACCACCCCTG | 1958 | #DIV/0! | 5.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 2 | 1 | 3 | ACCAGATTGA | 1959 | 0.5     | 3.0     | 1.5     |
| 3 | 0 | 3 | ACCGGCTTC  | 1960 | 0.0     | #DIV/0! | 1.0     |
| 1 | 2 | 3 | ACCCITCGAA | 1961 | 2.0     | 1.5     | 3.0     |
| 3 | 2 | 1 | ACCTGAGGTC | 1962 | 0.7     | 0.5     | 0.3     |
| 2 | 4 | 0 | ACCTTCATT  | 1963 | 2.0     | 0.0     | 0.0     |
| 2 | 2 | 2 | ACGAACTGT  | 1964 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 3 | ACGAAAGAAA | 1965 | 0.5     | 3.0     | 1.5     |
| 2 | 3 | 1 | ACGAACATTG | 1966 | 1.5     | 0.3     | 0.5     |
| 3 | 2 | 1 | ACGACTCATT | 1967 | 0.7     | 0.5     | 0.3     |
| 1 | 4 | 1 | ACGTCTAGTT | 1968 | 4.0     | 0.3     | 1.0     |
| 2 | 3 | 1 | ACGTTATAGT | 1969 | 1.5     | 0.3     | 0.5     |
| 2 | 2 | 2 | ACTGACATTT | 1970 | 1.0     | 1.0     | 1.0     |
| 1 | 5 | 0 | ACTTTTTCAG | 1971 | 5.0     | 0.0     | 0.0     |
| 1 | 3 | 2 | AGATATATGT | 1972 | 3.0     | 0.7     | 2.0     |
| 2 | 3 | 1 | AGCATAAATA | 1973 | 1.5     | 0.3     | 0.5     |
| 2 | 0 | 4 | AGCGAGAATA | 1974 | 0.0     | #DIV/0! | 2.0     |
| 4 | 1 | 1 | AGGACTTGGA | 1975 | 0.3     | 1.0     | 0.3     |
| 1 | 2 | 3 | AGGATGATCG | 1976 | 2.0     | 1.5     | 3.0     |
| 1 | 1 | 4 | AGGATGATGG | 1977 | 1.0     | 4.0     | 4.0     |
| 2 | 1 | 3 | AGGATGGATC | 1978 | 0.5     | 3.0     | 1.5     |
| 2 | 2 | 2 | AGGGCTTTGG | 1979 | 1.0     | 1.0     | 1.0     |
| 1 | 3 | 2 | AGTGACTCTT | 1980 | 3.0     | 0.7     | 2.0     |
| 1 | 3 | 2 | AGTGCCAACA | 1981 | 3.0     | 0.7     | 2.0     |
| 2 | 0 | 4 | ATAATTCATC | 1982 | 0.0     | #DIV/0! | 2.0     |
| 3 | 1 | 2 | ATATATTTAG | 1983 | 0.3     | 2.0     | 0.7     |
| 3 | 2 | 1 | ATCAAAAAAA | 1984 | 0.7     | 0.5     | 0.3     |
| 0 | 6 | 0 | ATCATCTTCA | 1985 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 3 | 2 | ATCTAGATCC | 1986 | 3.0     | 0.7     | 2.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 5 | 0 | ATGACCCAAA  | 1987 | 5.0     | 0.0     | 0.0     |
| 4 | 1 | 1 | ATGCCCGTTC  | 1988 | 0.3     | 1.0     | 0.3     |
| 3 | 2 | 1 | ATCGGTTTAA  | 1989 | 0.7     | 0.5     | 0.3     |
| 1 | 4 | 1 | ATGGTAGCCA  | 1990 | 4.0     | 0.3     | 1.0     |
| 3 | 0 | 3 | ATGGTGCGGT  | 1991 | 0.0     | #DIV/0! | 1.0     |
| 2 | 2 | 2 | ATGTGTGATT  | 1992 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 4 | ATTACCTTCG  | 1993 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 4 | 0 | ATTCCTGCTG  | 1994 | 2.0     | 0.0     | 0.0     |
| 1 | 3 | 2 | ATTCGTCCAA  | 1995 | 3.0     | 0.7     | 2.0     |
| 2 | 3 | 1 | ATTACAACG   | 1996 | 1.5     | 0.3     | 0.5     |
| 1 | 2 | 3 | ATTGTAAAC   | 1997 | 2.0     | 1.5     | 3.0     |
| 4 | 1 | 1 | ATTTTGCTG   | 1998 | 0.3     | 1.0     | 0.3     |
| 0 | 4 | 2 | CAAAAAGTTG  | 1999 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 4 | CAAAGATGGC  | 2000 | 1.0     | 4.0     | 4.0     |
| 3 | 0 | 3 | CAACAAAGTG  | 2001 | 0.0     | #DIV/0! | 1.0     |
| 3 | 0 | 3 | CAACAAGGTA  | 2002 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 4 | CAACATCACC  | 2003 | 1.0     | 4.0     | 4.0     |
| 3 | 1 | 2 | CAACTGGACC  | 2004 | 0.3     | 2.0     | 0.7     |
| 3 | 2 | 1 | CAACTTGTGA  | 2005 | 0.7     | 0.5     | 0.3     |
| 5 | 0 | 1 | CAAGAGAAAGT | 2006 | 0.0     | #DIV/0! | 0.2     |
| 1 | 3 | 2 | CAATAAAAGC  | 2007 | 3.0     | 0.7     | 2.0     |
| 0 | 3 | 3 | CACACGCACA  | 2008 | #DIV/0! | 1.0     | #DIV/0! |
| 3 | 2 | 1 | CACTGATGGC  | 2009 | 0.7     | 0.5     | 0.3     |
| 0 | 6 | 0 | CAGATATAAA  | 2010 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 1 | 2 | CAGCAATTTA  | 2011 | 0.3     | 2.0     | 0.7     |
| 1 | 2 | 3 | CAGGATGAGA  | 2012 | 2.0     | 1.5     | 3.0     |
| 1 | 1 | 4 | CATAAAATGC  | 2013 | 1.0     | 4.0     | 4.0     |
| 4 | 1 | 1 | CATACATAAA  | 2014 | 0.3     | 1.0     | 0.3     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|---------|
| 2 | 2 | 2 | 2 | CATACTCCTC  | 2015 | 1.0     | 1.0     | 1.0     | 1.0     |
| 3 | 2 | 1 | 1 | CATACTGGCG  | 2016 | 0.7     | 0.5     | 0.3     | 0.3     |
| 1 | 4 | 1 | 1 | CATTCAAACC  | 2017 | 4.0     | 0.3     | 1.0     | 1.0     |
| 2 | 1 | 3 | 3 | CATTCAAGTG  | 2018 | 0.5     | 3.0     | 1.5     | 1.5     |
| 3 | 2 | 1 | 1 | CCAAATGCT   | 2019 | 0.7     | 0.5     | 0.3     | 0.3     |
| 3 | 2 | 1 | 1 | CCAAATATCT  | 2020 | 0.7     | 0.5     | 0.3     | 0.3     |
| 3 | 1 | 2 | 2 | CCAAGAGTGG  | 2021 | 0.3     | 2.0     | 0.7     | 0.7     |
| 1 | 0 | 5 | 5 | CCACCTAATG  | 2022 | 0.0     | #DIV/0! | 5.0     | 5.0     |
| 2 | 3 | 1 | 1 | CCACTGTATA  | 2023 | 1.5     | 0.3     | 0.5     | 0.5     |
| 2 | 2 | 2 | 2 | CCAGGTCGTA  | 2024 | 1.0     | 1.0     | 1.0     | 1.0     |
| 2 | 2 | 2 | 2 | CCAGTTACAT  | 2025 | 1.0     | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 5 | 5 | CCCATAAGAA  | 2026 | #DIV/0! | 5.0     | #DIV/0! | #DIV/0! |
| 1 | 3 | 2 | 2 | CCCCCTAATG  | 2027 | 3.0     | 0.7     | 2.0     | 2.0     |
| 1 | 4 | 1 | 1 | CCCCCTATTAA | 2028 | 4.0     | 0.3     | 1.0     | 1.0     |
| 3 | 1 | 2 | 2 | CCCTTCCCTT  | 2029 | 0.3     | 2.0     | 0.7     | 0.7     |
| 0 | 2 | 4 | 4 | CCGTTTAGGA  | 2030 | #DIV/0! | 2.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 5 | 5 | CCTAAAGTTT  | 2031 | 0.0     | #DIV/0! | 5.0     | 5.0     |
| 1 | 4 | 1 | 1 | CGAAATCGAG  | 2032 | 4.0     | 0.3     | 1.0     | 1.0     |
| 1 | 2 | 3 | 3 | CGTCAACAAC  | 2033 | 2.0     | 1.5     | 3.0     | 3.0     |
| 1 | 3 | 2 | 2 | CTACACAGGT  | 2034 | 3.0     | 0.7     | 2.0     | 2.0     |
| 1 | 4 | 1 | 1 | CTATAGAACC  | 2035 | 4.0     | 0.3     | 1.0     | 1.0     |
| 1 | 1 | 4 | 4 | CTATCCAACA  | 2036 | 1.0     | 4.0     | 4.0     | 4.0     |
| 2 | 0 | 4 | 4 | CTCAGAAAAG  | 2037 | 0.0     | #DIV/0! | 2.0     | 2.0     |
| 4 | 2 | 0 | 0 | CTGCTTTTGT  | 2038 | 0.5     | 0.0     | 0.0     | 0.0     |
| 5 | 0 | 1 | 1 | CTTAATGCCG  | 2039 | 0.0     | #DIV/0! | 0.2     | 0.2     |
| 3 | 2 | 1 | 1 | CTTTTATACT  | 2040 | 0.7     | 0.5     | 0.3     | 0.3     |
| 3 | 3 | 0 | 0 | CTTTTCTGCT  | 2041 | 1.0     | 0.0     | 0.0     | 0.0     |
| 2 | 2 | 2 | 2 | GAAAAGGGT   | 2042 | 1.0     | 1.0     | 1.0     | 1.0     |

Table 5, cont.

|   |   |    |             |      |         |         |         |
|---|---|----|-------------|------|---------|---------|---------|
| 5 | 0 | 1  | GAATAAATAC  | 2043 | 0.0     | #DIV/0! | 0.2     |
| 1 | 2 | 3  | GAACAAGG    | 2044 | 2.0     | 1.5     | 3.0     |
| 2 | 0 | 4  | GAACGGTGT   | 2045 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 3  | GAAGAACGTC  | 2046 | 2.0     | 1.5     | 3.0     |
| 3 | 1 | 2  | GAATAATAGA  | 2047 | 0.3     | 2.0     | 0.7     |
| 4 | 2 | 0  | GAATGGAATC  | 2048 | 0.5     | 0.0     | 0.0     |
| 2 | 2 | 2  | GACAAAGTTG  | 2049 | 1.0     | 1.0     | 1.0     |
| 2 | 3 | 1  | GACITTTTGG  | 2050 | 1.5     | 0.3     | 0.5     |
| 1 | 3 | 2  | GATAATGACA  | 2051 | 3.0     | 0.7     | 2.0     |
| 1 | 3 | 2  | GATACTACGG  | 2052 | 3.0     | 0.7     | 2.0     |
| 2 | 2 | 2  | GATATGCTAT  | 2053 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 3  | GATCCAGTAG  | 2054 | 2.0     | 1.5     | 3.0     |
| 2 | 0 | 4  | GATCCATTTT  | 2055 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 3  | GCAAAAACATA | 2056 | 0.5     | 3.0     | 1.5     |
| 5 | 1 | 0  | GCAAGATCTT  | 2057 | 0.2     | 0.0     | 0.0     |
| 2 | 2 | 2  | GCAAGGTGCA  | 2058 | 1.0     | 1.0     | 1.0     |
| 4 | 1 | 1  | GCAAGTTCCT  | 2059 | 0.3     | 1.0     | 0.3     |
| 1 | 4 | 1  | GCAGTTCAAT  | 2060 | 4.0     | 0.3     | 1.0     |
| 4 | 1 | 1  | GCCAAAATCT  | 2061 | 0.3     | 1.0     | 0.3     |
| 2 | 1 | 3  | GCCCGCACTA  | 2062 | 0.5     | 3.0     | 1.5     |
| 1 | 1 | 4  | GCCGGTTTTC  | 2063 | 1.0     | 4.0     | 4.0     |
| 2 | 1 | 3  | GCCGTCGCGG  | 2064 | 0.5     | 3.0     | 1.5     |
| 2 | 2 | 2  | GCGAACCGAT  | 2065 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | .4 | GCGGCAGAAAT | 2066 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 2 | 2  | GCGGTGGTTT  | 2067 | 1.0     | 1.0     | 1.0     |
| 1 | 3 | 2  | GCTAGAAACA  | 2068 | 3.0     | 0.7     | 2.0     |
| 3 | 1 | 2  | GCTGATCAAG  | 2069 | 0.3     | 2.0     | 0.7     |
| 2 | 2 | 2  | GCTTGGATGG  | 2070 | 1.0     | 1.0     | 1.0     |



Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 3 | 1 | 2 | GGACAAACTG | 2071 | 0.3     | 2.0     | 0.7     |
| 2 | 2 | 2 | GGACAGAGCT | 2072 | 1.0     | 1.0     | 1.0     |
| 3 | 2 | 1 | GGACTATAAG | 2073 | 0.7     | 0.5     | 0.3     |
| 3 | 1 | 2 | GGATATGGCA | 2074 | 0.3     | 2.0     | 0.7     |
| 0 | 4 | 2 | GGCCTGGCG  | 2075 | #DIV/0! | 0.5     | #DIV/0! |
| 4 | 1 | 1 | GGCGAAACG  | 2076 | 0.3     | 1.0     | 0.3     |
| 0 | 4 | 2 | GGCTCTAGTT | 2077 | #DIV/0! | 0.5     | #DIV/0! |
| 3 | 1 | 2 | GGCTTGCITT | 2078 | 0.3     | 2.0     | 0.7     |
| 4 | 0 | 2 | GGGAGCCTTA | 2079 | 0.0     | #DIV/0! | 0.5     |
| 3 | 0 | 3 | GGGCTCTTGA | 2080 | 0.0     | #DIV/0! | 1.0     |
| 3 | 2 | 1 | GGGGCATATA | 2081 | 0.7     | 0.5     | 0.3     |
| 1 | 5 | 0 | GGTAACACGC | 2082 | 5.0     | 0.0     | 0.0     |
| 0 | 0 | 6 | GGTGTAACGA | 2083 | #DIV/0! | #DIV/0! | #DIV/0! |
| 3 | 2 | 1 | GTAATTTTGT | 2084 | 0.7     | 0.5     | 0.3     |
| 2 | 1 | 3 | GTACAAAGAG | 2085 | 0.5     | 3.0     | 1.5     |
| 3 | 3 | 0 | GTAGCGCCTG | 2086 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 2 | GTATTCCTGA | 2087 | 1.0     | 1.0     | 1.0     |
| 0 | 6 | 0 | GTCATATAGT | 2088 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 1 | 3 | GTCCACATA  | 2089 | 0.5     | 3.0     | 1.5     |
| 2 | 1 | 3 | GTCGGCGGC  | 2090 | 0.5     | 3.0     | 1.5     |
| 2 | 3 | 1 | GTGACTTTGC | 2091 | 1.5     | 0.3     | 0.5     |
| 5 | 0 | 1 | GTGGAGCTGT | 2092 | 0.0     | #DIV/0! | 0.2     |
| 2 | 1 | 3 | GTGGGAAAGG | 2093 | 0.5     | 3.0     | 1.5     |
| 3 | 1 | 2 | GTGGTGCTTT | 2094 | 0.3     | 2.0     | 0.7     |
| 1 | 1 | 4 | GTGTCATTTA | 2095 | 1.0     | 4.0     | 4.0     |
| 3 | 0 | 3 | GTGTGACGAT | 2096 | 0.0     | #DIV/0! | 1.0     |
| 2 | 4 | 0 | GTTATTCAC  | 2097 | 2.0     | 0.0     | 0.0     |
| 3 | 1 | 2 | GTTGAAGCAG | 2098 | 0.3     | 2.0     | 0.7     |

Table 5, cont.

|   |   |   |   |   |         |     |         |         |
|---|---|---|---|---|---------|-----|---------|---------|
| 4 | 2 | 0 | 0 | 0 | 0.5     | 0.0 | 0.0     | 0.0     |
| 3 | 2 | 1 | 0 | 0 | 0.7     | 0.5 | 0.3     | 0.3     |
| 3 | 2 | 1 | 0 | 0 | 0.7     | 0.5 | 0.3     | 0.3     |
| 3 | 3 | 0 | 0 | 0 | 1.0     | 0.0 | 0.0     | 0.0     |
| 2 | 2 | 2 | 0 | 0 | 1.0     | 1.0 | 1.0     | 1.0     |
| 2 | 2 | 2 | 0 | 0 | 1.0     | 1.0 | 1.0     | 1.0     |
| 3 | 1 | 2 | 0 | 0 | 0.3     | 2.0 | 0.7     | 0.7     |
| 1 | 1 | 4 | 0 | 0 | 1.0     | 4.0 | 4.0     | 4.0     |
| 1 | 3 | 2 | 0 | 0 | 3.0     | 0.7 | 2.0     | 2.0     |
| 4 | 1 | 1 | 0 | 0 | 0.3     | 1.0 | 0.3     | 0.3     |
| 2 | 2 | 2 | 0 | 0 | 1.0     | 1.0 | 1.0     | 1.0     |
| 3 | 2 | 1 | 0 | 0 | 0.7     | 0.5 | 0.3     | 0.3     |
| 2 | 3 | 1 | 0 | 0 | 1.5     | 0.3 | 0.5     | 0.5     |
| 2 | 3 | 1 | 0 | 0 | 1.5     | 0.3 | 0.5     | 0.5     |
| 2 | 4 | 0 | 0 | 0 | 2.0     | 0.0 | 0.0     | 0.0     |
| 1 | 5 | 0 | 0 | 0 | 5.0     | 0.0 | 0.0     | 0.0     |
| 0 | 5 | 1 | 0 | 0 | #DIV/0! | 0.2 | #DIV/0! | #DIV/0! |
| 3 | 3 | 0 | 0 | 0 | 1.0     | 0.0 | 0.0     | 0.0     |
| 1 | 3 | 2 | 0 | 0 | 3.0     | 0.7 | 2.0     | 2.0     |
| 2 | 2 | 2 | 0 | 0 | 1.0     | 1.0 | 1.0     | 1.0     |
| 2 | 3 | 1 | 0 | 0 | 1.5     | 0.3 | 0.5     | 0.5     |
| 4 | 2 | 0 | 0 | 0 | 0.5     | 0.0 | 0.0     | 0.0     |
| 2 | 2 | 3 | 0 | 0 | 0.5     | 3.0 | 1.5     | 1.5     |
| 2 | 2 | 2 | 0 | 0 | 1.0     | 1.0 | 1.0     | 1.0     |
| 3 | 2 | 1 | 0 | 0 | 0.5     | 0.0 | 0.0     | 0.0     |
| 2 | 2 | 2 | 0 | 0 | 0.5     | 3.0 | 1.5     | 1.5     |
| 3 | 2 | 1 | 0 | 0 | 0.7     | 0.5 | 0.3     | 0.3     |
| 2 | 2 | 2 | 0 | 0 | 1.0     | 1.0 | 1.0     | 1.0     |
| 1 | 4 | 1 | 0 | 0 | 4.0     | 0.3 | 1.0     | 1.0     |
| 3 | 3 | 0 | 0 | 0 | 1.0     | 0.0 | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 1 | 4 | TCCTGTACT  | 2127 | 1.0     | 4.0     | 4.0     |
| 0 | 5 | 1 | TCGACCACAC | 2128 | #DIV/0! | 0.2     | #DIV/0! |
| 5 | 0 | 1 | TCTGAATCTT | 2129 | 0.0     | #DIV/0! | 0.2     |
| 3 | 1 | 2 | TCTGATATCT | 2130 | 0.3     | 2.0     | 0.7     |
| 0 | 2 | 4 | TGAATGGACA | 2131 | #DIV/0! | 2.0     | #DIV/0! |
| 3 | 3 | 0 | TGAGGCTTGC | 2132 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 4 | TGATGAAGAT | 2133 | 1.0     | 4.0     | 4.0     |
| 0 | 3 | 3 | TGCGGTTTAA | 2134 | #DIV/0! | 1.0     | #DIV/0! |
| 3 | 2 | 1 | TGCTGCATAC | 2135 | 0.7     | 0.5     | 0.3     |
| 2 | 1 | 3 | TGCTTTGATT | 2136 | 0.5     | 3.0     | 1.5     |
| 3 | 1 | 2 | TGGTATCCTA | 2137 | 0.3     | 2.0     | 0.7     |
| 1 | 2 | 3 | TGGTCATCAA | 2138 | 2.0     | 1.5     | 3.0     |
| 3 | 0 | 3 | TGTATACGTG | 2139 | 0.0     | #DIV/0! | 1.0     |
| 3 | 2 | 1 | TGTATGACTA | 2140 | 0.7     | 0.5     | 0.3     |
| 1 | 2 | 3 | TGTGCTAAGC | 2141 | 2.0     | 1.5     | 3.0     |
| 6 | 0 | 0 | TGTTTTATG  | 2142 | 0.0     | #DIV/0! | 0.0     |
| 0 | 4 | 2 | TTACAATTAA | 2143 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 2 | 2 | TTACTTTGAC | 2144 | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 3 | TTATGTTCTC | 2145 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 4 | 0 | TTCTATCTAA | 2146 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 3 | TTGAAACTAA | 2147 | 2.0     | 1.5     | 3.0     |
| 1 | 4 | 1 | TTGAGTTGAA | 2148 | 4.0     | 0.3     | 1.0     |
| 5 | 1 | 0 | TTGCAATAAA | 2149 | 0.2     | 0.0     | 0.0     |
| 2 | 3 | 1 | TTGGTGGTCA | 2150 | 1.5     | 0.3     | 0.5     |
| 4 | 0 | 2 | TTGTGGATGA | 2151 | 0.0     | #DIV/0! | 0.5     |
| 4 | 2 | 0 | TTTAATACTG | 2152 | 0.5     | 0.0     | 0.0     |
| 2 | 2 | 2 | TTTAGTTAAT | 2153 | 1.0     | 1.0     | 1.0     |
| 3 | 1 | 2 | TTTTTCTATC | 2154 | 0.3     | 2.0     | 0.7     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 5 | 0 | AAAAATGAGG | 2155 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 2 | 0 | AAACATAAA  | 2156 | 0.7     | 0.0     | 0.0     |
| 3 | 0 | 2 | AAATGAAGA  | 2157 | 0.0     | #DIV/0! | 0.7     |
| 3 | 2 | 0 | AAATGATCA  | 2158 | 0.7     | 0.0     | 0.0     |
| 1 | 2 | 2 | AAATGTTGG  | 2159 | 2.0     | 1.0     | 2.0     |
| 1 | 3 | 1 | AAATTCITT  | 2160 | 3.0     | 0.3     | 1.0     |
| 2 | 2 | 1 | AAACCAGCTG | 2161 | 1.0     | 0.5     | 0.5     |
| 1 | 2 | 2 | AAACCGTCCC | 2162 | 2.0     | 1.0     | 2.0     |
| 3 | 1 | 1 | AAACCTGTGA | 2163 | 0.3     | 1.0     | 0.3     |
| 1 | 2 | 2 | AAACGCGACA | 2164 | 2.0     | 1.0     | 2.0     |
| 0 | 2 | 3 | AAACTATGAT | 2165 | #DIV/0! | 1.5     | #DIV/0! |
| 3 | 1 | 1 | AAACTTTCAA | 2166 | 0.3     | 1.0     | 0.3     |
| 2 | 1 | 2 | AAAGTTTTCT | 2167 | 0.5     | 2.0     | 1.0     |
| 1 | 3 | 1 | AAATAATTAA | 2168 | 3.0     | 0.3     | 1.0     |
| 3 | 2 | 0 | AAATGGTGAT | 2169 | 0.7     | 0.0     | 0.0     |
| 2 | 2 | 1 | AAATCCCCCG | 2170 | 1.0     | 0.5     | 0.5     |
| 1 | 1 | 3 | AAATTGAGAT | 2171 | 1.0     | 3.0     | 3.0     |
| 2 | 0 | 3 | AACACAATAA | 2172 | 0.0     | #DIV/0! | 1.5     |
| 1 | 2 | 2 | AACAGACCAA | 2173 | 2.0     | 1.0     | 2.0     |
| 3 | 2 | 0 | AACCAGCTAA | 2174 | 0.7     | 0.0     | 0.0     |
| 0 | 0 | 5 | AACGACGAGG | 2175 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 3 | AACGAGTTAT | 2176 | 0.0     | #DIV/0! | 1.5     |
| 1 | 2 | 2 | AACGTCAAGC | 2177 | 2.0     | 1.0     | 2.0     |
| 1 | 1 | 3 | AACTTACTGT | 2178 | 1.0     | 3.0     | 3.0     |
| 4 | 0 | 1 | AAGAAGGCCA | 2179 | 0.0     | #DIV/0! | 0.3     |
| 1 | 1 | 3 | AAGAGGAGAA | 2180 | 1.0     | 3.0     | 3.0     |
| 2 | 2 | 1 | AAGAGGTCAA | 2181 | 1.0     | 0.5     | 0.5     |
| 0 | 2 | 3 | AAGCCAGGCA | 2182 | #DIV/0! | 1.5     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 2 | 3 | AAGGATAAAG | 2183 | #DIV/0! | 1.5     | #DIV/0! |
| 0 | 4 | 1 | AAGGGCAAAG | 2184 | #DIV/0! | 0.3     | #DIV/0! |
| 3 | 0 | 2 | AAGTACTCTA | 2185 | 0.0     | #DIV/0! | 1.0.7   |
| 2 | 3 | 0 | AATAATAGTT | 2186 | 1.5     | 0.0     | 0.0     |
| 4 | 0 | 1 | AATACCAGCG | 2187 | 0.0     | #DIV/0! | 0.3     |
| 1 | 3 | 1 | AATACCATCA | 2188 | 3.0     | 0.3     | 1.0     |
| 3 | 1 | 1 | AATGGAGCGT | 2189 | 0.3     | 1.0     | 0.3     |
| 4 | 0 | 1 | AATTAATGCA | 2190 | 0.0     | #DIV/0! | 0.3     |
| 2 | 1 | 2 | AATTACAGAA | 2191 | 0.5     | 2.0     | 1.0     |
| 2 | 0 | 3 | ACAACAGTAT | 2192 | 0.0     | #DIV/0! | 1.5     |
| 3 | 1 | 1 | ACAAGATTGT | 2193 | 0.3     | 1.0     | 0.3     |
| 2 | 2 | 1 | ACAGGCCAGC | 2194 | 1.0     | 0.5     | 0.5     |
| 2 | 1 | 2 | ACAGGTGTCA | 2195 | 0.5     | 2.0     | 1.0     |
| 3 | 2 | 0 | ACATAGGCCA | 2196 | 0.7     | 0.0     | 0.0     |
| 0 | 4 | 1 | ACATCCCCCT | 2197 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 3 | 1 | ACATCTCATT | 2198 | 3.0     | 0.3     | 1.0     |
| 1 | 3 | 1 | ACCATTTAGT | 2199 | 3.0     | 0.3     | 1.0     |
| 2 | 2 | 1 | ACCCGAGTCC | 2200 | 1.0     | 0.5     | 0.5     |
| 1 | 2 | 2 | ACCTCCATT  | 2201 | 2.0     | 1.0     | 2.0     |
| 2 | 2 | 1 | ACGAGATGCG | 2202 | 1.0     | 0.5     | 0.5     |
| 0 | 2 | 3 | ACGAGCTTTG | 2203 | #DIV/0! | 1.5     | #DIV/0! |
| 3 | 1 | 1 | ACGATCTGGC | 2204 | 0.3     | 1.0     | 0.3     |
| 2 | 1 | 2 | ACTCTAAGAT | 2205 | 0.5     | 2.0     | 1.0     |
| 1 | 4 | 0 | ACTTCGTCTT | 2206 | 4.0     | 0.0     | 0.0     |
| 4 | 0 | 1 | ACTTGACAGC | 2207 | 0.0     | #DIV/0! | 0.3     |
| 2 | 1 | 2 | ACTTGCGGTA | 2208 | 0.5     | 2.0     | 1.0     |
| 3 | 0 | 2 | ACTTTATGGG | 2209 | 0.0     | #DIV/0! | 0.7     |
| 2 | 0 | 3 | AGAAAAACA  | 2210 | 0.0     | #DIV/0! | 1.5     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 2 | 1 | 2 | AGAACATCAA | 2211 | 0.5     | 2.0     | 1.0     |
| 1 | 2 | 2 | AGAACGTGG  | 2212 | 2.0     | 1.0     | 2.0     |
| 1 | 0 | 4 | AGAAGCTGAA | 2213 | 0.0     | #DIV/0! | 4.0     |
| 2 | 3 | 0 | AGACAACTA  | 2214 | 1.5     | 0.0     | 0.0     |
| 4 | 1 | 0 | AGACAGACTG | 2215 | 0.3     | 0.0     | 0.0     |
| 2 | 1 | 2 | AGATTAAAGT | 2216 | 0.5     | 2.0     | 1.0     |
| 2 | 1 | 2 | AGATTGAAG  | 2217 | 0.5     | 2.0     | 1.0     |
| 0 | 2 | 3 | AGCACTATGT | 2218 | #DIV/0! | 1.5     | #DIV/0! |
| 2 | 1 | 2 | AGCAGGGGAA | 2219 | 0.5     | 2.0     | 1.0     |
| 3 | 0 | 2 | AGGAAAGAA  | 2220 | 0.0     | #DIV/0! | 0.7     |
| 3 | 0 | 2 | AGGAGAGAGA | 2221 | 0.0     | #DIV/0! | 0.7     |
| 2 | 1 | 2 | AGGCAAACTG | 2222 | 0.5     | 2.0     | 1.0     |
| 1 | 1 | 3 | AGGTCAACGG | 2223 | 1.0     | 3.0     | 3.0     |
| 1 | 3 | 1 | AGGTGATGG  | 2224 | 3.0     | 0.3     | 1.0     |
| 3 | 1 | 1 | AGTGAAAAAA | 2225 | 0.3     | 1.0     | 0.3     |
| 1 | 0 | 4 | AGTGGATGGT | 2226 | 0.0     | #DIV/0! | 4.0     |
| 0 | 3 | 2 | AGTTCTTCTT | 2227 | #DIV/0! | 0.7     | #DIV/0! |
| 0 | 3 | 2 | ATACCAGCCT | 2228 | #DIV/0! | 0.7     | #DIV/0! |
| 0 | 2 | 3 | ATAGCAATTG | 2229 | #DIV/0! | 1.5     | #DIV/0! |
| 0 | 2 | 3 | ATCACACAGT | 2230 | #DIV/0! | 1.5     | #DIV/0! |
| 2 | 1 | 2 | ATCATTTGGG | 2231 | 0.5     | 2.0     | 1.0     |
| 0 | 5 | 0 | ATCGCATATT | 2232 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 3 | ATCGGTACTT | 2233 | 0.0     | #DIV/0! | 1.5     |
| 2 | 1 | 2 | ATCTCTTACC | 2234 | 0.5     | 2.0     | 1.0     |
| 1 | 3 | 1 | ATCTTGAGCT | 2235 | 3.0     | 0.3     | 1.0     |
| 4 | 1 | 0 | ATCTTTTCAT | 2236 | 0.3     | 0.0     | 0.0     |
| 0 | 5 | 0 | ATGAGTTTAT | 2237 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 0 | 2 | ATGGAGCCAA | 2238 | 0.0     | #DIV/0! | 0.7     |

Table 5, cont.

|   |   |    |    |             |      |         |         |         |
|---|---|----|----|-------------|------|---------|---------|---------|
| 2 | 2 | 1  | 2  | ATGATATGC   | 2239 | 0.5     | 2.0     | 1.0     |
| 2 | 2 | 1  | 1  | ATGGCAGTT   | 2240 | 1.0     | 0.5     | 0.5     |
| 3 | 2 | 0  | 0  | ATTATGGCGT  | 2241 | 0.7     | 0.0     | 0.0     |
| 4 | 1 | 0  | 0  | ATTATTCTC   | 2242 | 0.3     | 0.0     | 0.0     |
| 1 | 4 | 0  | 0  | ATTGAGAAGG  | 2243 | 4.0     | 0.0     | 0.0     |
| 5 | 0 | 0  | 0  | ATTGCGAGAG  | 2244 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 4  | 4  | ATTGTCAAGG  | 2245 | #DIV/0! | 4.0     | #DIV/0! |
| 0 | 0 | 5  | 5  | ATTACAATT   | 2246 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 3  | 3  | ATTGGACAA   | 2247 | 1.0     | 3.0     | 3.0     |
| 0 | 4 | 1  | 1  | ATTTCTGTT   | 2248 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 0 | 5  | 5  | CAACAAGAA   | 2249 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 2 | 2  | 2  | CAAGGAGGC   | 2250 | 2.0     | 1.0     | 2.0     |
| 0 | 0 | 5  | 5  | CAATCCAAA   | 2251 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 2 | 1  | 1  | CAACTTTATT  | 2252 | 1.0     | 0.5     | 0.5     |
| 1 | 2 | 2  | 2  | CAAGATTATG  | 2253 | 2.0     | 1.0     | 2.0     |
| 3 | 1 | 1  | 1  | CAAGTGCACA  | 2254 | 0.3     | 1.0     | 0.3     |
| 1 | 3 | 1  | 1  | CAATCCAATA  | 2255 | 3.0     | 0.3     | 1.0     |
| 2 | 2 | 1  | 1  | CAATCGAGGC  | 2256 | 1.0     | 0.5     | 0.5     |
| 1 | 3 | 1  | 1  | CAATCTTTA   | 2257 | 3.0     | 0.3     | 1.0     |
| 2 | 1 | 2  | 2  | CAATTGGGAA  | 2258 | 0.5     | 2.0     | 1.0     |
| 2 | 3 | 0  | 0  | CAATTTCTTG  | 2259 | 1.5     | 0.0     | 0.0     |
| 3 | 2 | 0  | 0  | CACGCAAGTT  | 2260 | 0.7     | 0.0     | 0.0     |
| 2 | 2 | 1  | 1  | CACGTTAGGG  | 2261 | 1.0     | 0.5     | 0.5     |
| 0 | 5 | 0. | 0. | CACTAAAATT  | 2262 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 4  | 4  | CAGAACCAATC | 2263 | #DIV/0! | 4.0     | #DIV/0! |
| 2 | 0 | 3  | 3  | CAGGGTAACC  | 2264 | 0.0     | #DIV/0! | 1.5     |
| 3 | 0 | 2  | 2  | CAGTATTTAA  | 2265 | 0.0     | #DIV/0! | 0.7     |
| 1 | 4 | 0  | 0  | CATAAAATGT  | 2266 | 4.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 3 | 1 | 1 | 1 | CATCGTAAA  | 2267 | 0.3     | 1.0     | 0.3     |
| 1 | 3 | 1 | 1 | CCAACAATGA | 2268 | 3.0     | 0.3     | 1.0     |
| 1 | 4 | 0 | 0 | CCAATGGTTC | 2269 | 4.0     | 0.0     | 0.0     |
| 0 | 3 | 2 | 2 | CCAGAAGGAG | 2270 | #DIV/0! | 0.7     | #DIV/0! |
| 0 | 3 | 2 | 2 | CCATATCTGT | 2271 | #DIV/0! | 0.7     | #DIV/0! |
| 4 | 1 | 0 | 0 | CCATTGATGA | 2272 | 0.3     | 0.0     | 0.0     |
| 1 | 1 | 3 | 3 | CCGGGTACT  | 2273 | 1.0     | 3.0     | 3.0     |
| 1 | 1 | 3 | 3 | CCCTAAGACT | 2274 | 1.0     | 3.0     | 3.0     |
| 3 | 0 | 2 | 2 | CCGAGTGCTA | 2275 | 0.0     | #DIV/0! | 0.7     |
| 0 | 4 | 1 | 1 | CCGGCAACAC | 2276 | #DIV/0! | 0.3     | #DIV/0! |
| 2 | 1 | 2 | 2 | CCGGTTACTA | 2277 | 0.5     | 2.0     | 1.0     |
| 0 | 5 | 0 | 0 | CCTGAGTCGT | 2278 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 1 | 2 | 2 | CCTTACGTCT | 2279 | 0.5     | 2.0     | 1.0     |
| 0 | 2 | 3 | 3 | CCITCGTTAC | 2280 | #DIV/0! | 1.5     | #DIV/0! |
| 3 | 1 | 1 | 1 | CCITTAGACT | 2281 | 0.3     | 1.0     | 0.3     |
| 4 | 1 | 0 | 0 | CCITTCAAAA | 2282 | 0.3     | 0.0     | 0.0     |
| 1 | 3 | 1 | 1 | CGAAGTGATG | 2283 | 3.0     | 0.3     | 1.0     |
| 0 | 3 | 2 | 2 | CGAGACTTGG | 2284 | #DIV/0! | 0.7     | #DIV/0! |
| 2 | 2 | 1 | 1 | CGATCACCAA | 2285 | 1.0     | 0.5     | 0.5     |
| 1 | 2 | 2 | 2 | CGATGAGAAG | 2286 | 2.0     | 1.0     | 2.0     |
| 3 | 1 | 1 | 1 | CGATGTCATT | 2287 | 0.3     | 1.0     | 0.3     |
| 0 | 1 | 4 | 4 | CGGGGAATGT | 2288 | #DIV/0! | 4.0     | #DIV/0! |
| 3 | 0 | 2 | 2 | CGTTTCCGCA | 2289 | 0.0     | #DIV/0! | 0.7     |
| 2 | 1 | 2 | 2 | CTAGAGGTTT | 2290 | 0.5     | 2.0     | 1.0     |
| 1 | 2 | 2 | 2 | CTCACTGACT | 2291 | 2.0     | 1.0     | 2.0     |
| 1 | 1 | 3 | 3 | CTCTTCTGTT | 2292 | 1.0     | 3.0     | 3.0     |
| 0 | 4 | 1 | 1 | CTGAACTTTA | 2293 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 4 | 1 | 1 | CTGATAGAAG | 2294 | #DIV/0! | 0.3     | #DIV/0! |



Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 4 | CTGGAAGAGA  | 2295 | #DIV/0! | 4.0     | #DIV/0! |
| 3 | 2 | 0 | CTGGCATT    | 2296 | 0.7     | 0.0     | 0.0     |
| 1 | 1 | 3 | CTGGCTCAAG  | 2297 | 1.0     | 3.0     | 3.0     |
| 2 | 1 | 2 | CTGGTAAATC  | 2298 | 0.5     | 2.0     | 1.0     |
| 2 | 2 | 1 | CTGTTCTGGC  | 2299 | 1.0     | 0.5     | 0.5     |
| 2 | 2 | 1 | CTTGAGACGA  | 2300 | 1.0     | 0.5     | 0.5     |
| 1 | 4 | 0 | CTTGATAATA  | 2301 | 4.0     | 0.0     | 0.0     |
| 2 | 1 | 2 | CTTGGGCTAT  | 2302 | 0.5     | 2.0     | 1.0     |
| 1 | 2 | 2 | CTTGTGGATA  | 2303 | 2.0     | 1.0     | 2.0     |
| 1 | 2 | 2 | CTTTACCAAA  | 2304 | 2.0     | 1.0     | 2.0     |
| 1 | 2 | 2 | CTTTGAAAA   | 2305 | 2.0     | 1.0     | 2.0     |
| 1 | 4 | 0 | CTTTTCAAA   | 2306 | 4.0     | 0.0     | 0.0     |
| 3 | 2 | 0 | GAAAAGATTT  | 2307 | 0.7     | 0.0     | 0.0     |
| 2 | 1 | 2 | GAAAAGTAAA  | 2308 | 0.5     | 2.0     | 1.0     |
| 2 | 1 | 2 | GAAACTGAAC  | 2309 | 0.5     | 2.0     | 1.0     |
| 2 | 0 | 3 | GAAAGTGATGA | 2310 | 0.0     | #DIV/0! | 1.5     |
| 1 | 2 | 2 | GAATCCAGTA  | 2311 | 2.0     | 1.0     | 2.0     |
| 2 | 1 | 2 | GACAAGACGA  | 2312 | 0.5     | 2.0     | 1.0     |
| 0 | 2 | 3 | GACATTTGGA  | 2313 | #DIV/0! | 1.5     | #DIV/0! |
| 1 | 3 | 1 | GACCGCAATG  | 2314 | 3.0     | 0.3     | 1.0     |
| 0 | 1 | 4 | GACGCTGTTA  | 2315 | #DIV/0! | 4.0     | #DIV/0! |
| 2 | 2 | 1 | GAGAACGCAA  | 2316 | 1.0     | 0.5     | 0.5     |
| 0 | 4 | 1 | GAGCTAAGAA  | 2317 | #DIV/0! | 0.3     | #DIV/0! |
| 3 | 2 | 0 | GAGGCTCAAA  | 2318 | 0.7     | 0.0     | 0.0     |
| 3 | 0 | 2 | GATATCTTTA  | 2319 | 0.0     | #DIV/0! | 0.7     |
| 2 | 1 | 2 | GATCCAATCC  | 2320 | 0.5     | 2.0     | 1.0     |
| 5 | 0 | 0 | GATGACCGAAT | 2321 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 3 | GATGCCCTTT  | 2322 | 1.0     | 3.0     | 3.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 4 | 1 | GATTCCTAAA  | 2323 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 1 | 3 | GATTCCTGAG  | 2324 | 1.0     | 3.0     | 3.0     |
| 2 | 2 | 1 | GATTGAAGAA  | 2325 | 1.0     | 0.5     | 0.5     |
| 1 | 2 | 2 | GATTCCTCTG  | 2326 | 2.0     | 1.0     | 2.0     |
| 4 | 1 | 0 | GATTTTGT    | 2327 | 0.3     | 0.0     | 0.0     |
| 3 | 1 | 1 | GATTTTTC    | 2328 | 0.3     | 1.0     | 0.3     |
| 2 | 3 | 0 | GCAGATCTCG  | 2329 | 1.5     | 0.0     | 0.0     |
| 2 | 1 | 2 | GCCAAGAAAC  | 2330 | 0.5     | 2.0     | 1.0     |
| 3 | 2 | 0 | GCCAATGACC  | 2331 | 0.7     | 0.0     | 0.0     |
| 1 | 1 | 3 | GCCACTGGTA  | 2332 | 1.0     | 3.0     | 3.0     |
| 5 | 0 | 0 | GCCGTTCTTA  | 2333 | 0.0     | #DIV/0! | 0.0     |
| 1 | 3 | 1 | GCCTCGTTTA  | 2334 | 3.0     | 0.3     | 1.0     |
| 0 | 3 | 2 | GCCTTGTATA  | 2335 | #DIV/0! | 0.7     | #DIV/0! |
| 0 | 1 | 4 | GCGATGTACT  | 2336 | #DIV/0! | 4.0     | #DIV/0! |
| 1 | 2 | 2 | GCGCCTTGTT  | 2337 | 2.0     | 1.0     | 2.0     |
| 1 | 2 | 2 | GCGGCTGCTG  | 2338 | 2.0     | 1.0     | 2.0     |
| 2 | 2 | 1 | GCGTGACGAA  | 2339 | 1.0     | 0.5     | 0.5     |
| 2 | 1 | 2 | GCTATGTGTA  | 2340 | 0.5     | 2.0     | 1.0     |
| 1 | 2 | 2 | GCTCCTGAAG  | 2341 | 2.0     | 1.0     | 2.0     |
| 2 | 3 | 0 | GCTGCGGTAT  | 2342 | 1.5     | 0.0     | 0.0     |
| 3 | 1 | 1 | GCTGTGACTT  | 2343 | 0.3     | 1.0     | 0.3     |
| 1 | 4 | 0 | GCTTGC GTGT | 2344 | 4.0     | 0.0     | 0.0     |
| 2 | 2 | 1 | GGAATAGACA  | 2345 | 1.0     | 0.5     | 0.5     |
| 0 | 3 | 2 | GGACCTAAGT  | 2346 | #DIV/0! | 0.7     | #DIV/0! |
| 3 | 2 | 0 | GGACCTGTGG  | 2347 | 0.7     | 0.0     | 0.0     |
| 3 | 1 | 1 | GGAGCGGTAA  | 2348 | 0.3     | 1.0     | 0.3     |
| 0 | 1 | 4 | GGAGTGGCAG  | 2349 | #DIV/0! | 4.0     | #DIV/0! |
| 1 | 2 | 2 | GGATCGTCCG  | 2350 | 2.0     | 1.0     | 2.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 3 | 1 | GGATCTTACT | 2351 | 3.0     | 0.3     | 1.0     |
| 3 | 1 | 1 | GGATTACTG  | 2352 | 0.3     | 1.0     | 0.3     |
| 2 | 1 | 2 | GGATTTGTG  | 2353 | 0.5     | 2.0     | 1.0     |
| 1 | 0 | 4 | GGCAACACTT | 2354 | 0.0     | #DIV/0! | 4.0     |
| 2 | 1 | 2 | GGGAAACCGG | 2355 | 0.5     | 2.0     | 1.0     |
| 0 | 1 | 4 | GGGTATCCCG | 2356 | #DIV/0! | 4.0     | #DIV/0! |
| 1 | 3 | 1 | GGGTACTAT  | 2357 | 3.0     | 0.3     | 1.0     |
| 1 | 3 | 1 | GGGTAGATA  | 2358 | 3.0     | 0.3     | 1.0     |
| 1 | 3 | 1 | GGGTGCTAAG | 2359 | 3.0     | 0.3     | 1.0     |
| 2 | 1 | 2 | GGGTGTCTT  | 2360 | 0.5     | 2.0     | 1.0     |
| 1 | 1 | 3 | GGGTTCTCTG | 2361 | 1.0     | 3.0     | 3.0     |
| 1 | 1 | 3 | GGTAAGCAGT | 2362 | 1.0     | 3.0     | 3.0     |
| 1 | 2 | 2 | GGTACATTCA | 2363 | 2.0     | 1.0     | 2.0     |
| 5 | 0 | 0 | GGTGAAAGTT | 2364 | 0.0     | #DIV/0! | 0.0     |
| 1 | 2 | 2 | GGTGATGAAG | 2365 | 2.0     | 1.0     | 2.0     |
| 1 | 1 | 3 | GGTGCTAGGA | 2366 | 1.0     | 3.0     | 3.0     |
| 4 | 1 | 0 | GGTGGCGAGG | 2367 | 0.3     | 0.0     | 0.0     |
| 0 | 3 | 2 | GGGTGAAGG  | 2368 | #DIV/0! | 0.7     | #DIV/0! |
| 2 | 2 | 1 | GGGTTAACC  | 2369 | 1.0     | 0.5     | 0.5     |
| 2 | 2 | 1 | GGGTTAGCG  | 2370 | 1.0     | 0.5     | 0.5     |
| 1 | 2 | 2 | GGTTAATTAA | 2371 | 2.0     | 1.0     | 2.0     |
| 1 | 0 | 4 | GTAAAGAAG  | 2372 | 0.0     | #DIV/0! | 4.0     |
| 1 | 4 | 0 | GTAAGAAATC | 2373 | 4.0     | 0.0     | 0.0     |
| 2 | 1 | 2 | GTACTTTCIC | 2374 | 0.5     | 2.0     | 1.0     |
| 1 | 2 | 2 | GTCAAGGGCC | 2375 | 2.0     | 1.0     | 2.0     |
| 3 | 0 | 2 | GTCCACGCAG | 2376 | 0.0     | #DIV/0! | 0.7     |
| 0 | 2 | 3 | GTGATGAAGT | 2377 | #DIV/0! | 1.5     | #DIV/0! |
| 3 | 2 | 0 | GTGCAACAAC | 2378 | 0.7     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |            |      |     |         |     |
|---|---|---|------------|------|-----|---------|-----|
| 1 | 0 | 4 | GTGTTAACGA | 2379 | 0.0 | #DIV/0! | 4.0 |
| 1 | 3 | 1 | GTAACTGAT  | 2380 | 3.0 | 0.3     | 1.0 |
| 3 | 0 | 2 | GTTGGAAGGG | 2381 | 0.0 | #DIV/0! | 0.7 |
| 1 | 2 | 2 | GTTTCTTT   | 2382 | 2.0 | 1.0     | 2.0 |
| 1 | 3 | 1 | TAAATAACAA | 2383 | 3.0 | 0.3     | 1.0 |
| 4 | 1 | 0 | TAAATGTTAG | 2384 | 0.3 | 0.0     | 0.0 |
| 2 | 0 | 3 | TAAGGATGGG | 2385 | 0.0 | #DIV/0! | 1.5 |
| 3 | 1 | 1 | TAATGAAAC  | 2386 | 0.3 | 1.0     | 0.3 |
| 2 | 0 | 3 | TACAAATTGG | 2387 | 0.0 | #DIV/0! | 1.5 |
| 1 | 2 | 2 | TACCTGCCG  | 2388 | 2.0 | 1.0     | 2.0 |
| 2 | 1 | 2 | TACGTTGATG | 2389 | 0.5 | 2.0     | 1.0 |
| 1 | 4 | 0 | TAGAACAATA | 2390 | 4.0 | 0.0     | 0.0 |
| 2 | 1 | 2 | TAGCGTATTC | 2391 | 0.5 | 2.0     | 1.0 |
| 1 | 3 | 1 | TAGTAAGTAA | 2392 | 3.0 | 0.3     | 1.0 |
| 5 | 0 | 0 | TAGTTGCTCC | 2393 | 0.0 | #DIV/0! | 0.0 |
| 2 | 3 | 0 | TATATATATA | 2394 | 1.5 | 0.0     | 0.0 |
| 1 | 4 | 0 | TATATCAGTG | 2395 | 4.0 | 0.0     | 0.0 |
| 1 | 4 | 0 | TATATTAAAA | 2396 | 4.0 | 0.0     | 0.0 |
| 2 | 2 | 1 | TATGCCTAAA | 2397 | 1.0 | 0.5     | 0.5 |
| 1 | 0 | 4 | TATGCTAGCA | 2398 | 0.0 | #DIV/0! | 4.0 |
| 2 | 3 | 0 | TATGGAATAA | 2399 | 1.5 | 0.0     | 0.0 |
| 3 | 1 | 1 | TATGGGCGAC | 2400 | 0.3 | 1.0     | 0.3 |
| 2 | 2 | 1 | TATTTTGATG | 2401 | 1.0 | 0.5     | 0.5 |
| 1 | 2 | 2 | TCAGAAACAC | 2402 | 2.0 | 1.0     | 2.0 |
| 4 | 0 | 1 | TCAGGTCCAT | 2403 | 0.0 | #DIV/0! | 0.3 |
| 3 | 1 | 1 | TCATCATTTT | 2404 | 0.3 | 1.0     | 0.3 |
| 4 | 1 | 0 | TCATCCGTGA | 2405 | 0.3 | 0.0     | 0.0 |
| 4 | 1 | 0 | TCCACCTACT | 2406 | 0.3 | 0.0     | 0.0 |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 5 | 0 | TCCCATTA    | 2407 | #DIV/0! | 0.0     | #DIV/0! |
| 4 | 1 | 0 | 0 | TCCCGTATT   | 2408 | 0.3     | 0.0     | 0.0     |
| 1 | 3 | 1 | 1 | TCCCTATCAA  | 2409 | 3.0     | 0.3     | 1.0     |
| 2 | 3 | 0 | 0 | TCCCTATTGA  | 2410 | 1.5     | 0.0     | 0.0     |
| 2 | 3 | 0 | 0 | TCCCTGTTAA  | 2411 | 1.5     | 0.0     | 0.0     |
| 1 | 3 | 1 | 1 | TCTAGTTCG   | 2412 | 3.0     | 0.3     | 1.0     |
| 0 | 3 | 2 | 2 | TCGTCATCGG  | 2413 | #DIV/0! | 0.7     | #DIV/0! |
| 0 | 3 | 2 | 2 | TCTCAATAAC  | 2414 | #DIV/0! | 0.7     | #DIV/0! |
| 2 | 1 | 2 | 2 | TCTCTAGCTA  | 2415 | 0.5     | 2.0     | 1.0     |
| 2 | 2 | 1 | 1 | TCTGGATTGC  | 2416 | 1.0     | 0.5     | 0.5     |
| 1 | 2 | 2 | 2 | TCTTGAAAAG  | 2417 | 2.0     | 1.0     | 2.0     |
| 0 | 4 | 1 | 1 | TCTTGGTATA  | 2418 | #DIV/0! | 0.3     | #DIV/0! |
| 2 | 1 | 2 | 2 | TGAGTAAATC  | 2419 | 0.5     | 2.0     | 1.0     |
| 2 | 1 | 2 | 2 | TGCACAAATTG | 2420 | 0.5     | 2.0     | 1.0     |
| 2 | 1 | 2 | 2 | TGCAGCCTGC  | 2421 | 0.5     | 2.0     | 1.0     |
| 3 | 1 | 1 | 1 | TGCCTCAGGA  | 2422 | 0.3     | 1.0     | 0.3     |
| 2 | 3 | 0 | 0 | TGCTGAAC TT | 2423 | 1.5     | 0.0     | 0.0     |
| 0 | 3 | 2 | 2 | TGGCAAAAA   | 2424 | #DIV/0! | 0.7     | #DIV/0! |
| 0 | 3 | 2 | 2 | TGGCAATATG  | 2425 | #DIV/0! | 0.7     | #DIV/0! |
| 2 | 0 | 3 | 3 | TGGCGGAAGC  | 2426 | 0.0     | #DIV/0! | 1.5     |
| 3 | 1 | 1 | 1 | TGGCGTGACA  | 2427 | 0.3     | 1.0     | 0.3     |
| 2 | 0 | 3 | 3 | TGGCTTAAAC  | 2428 | 0.0     | #DIV/0! | 1.5     |
| 2 | 1 | 2 | 2 | TGGGATGTAG  | 2429 | 0.5     | 2.0     | 1.0     |
| 1 | 2 | 2 | 2 | TGGGTCCAA   | 2430 | 2.0     | 1.0     | 2.0     |
| 1 | 0 | 4 | 4 | TGTAAGACGG  | 2431 | 0.0     | #DIV/0! | 4.0     |
| 1 | 1 | 3 | 1 | TGTAGTTTCT  | 2432 | 3.0     | 0.3     | 1.0     |
| 2 | 2 | 1 | 1 | TGTTGTGGAG  | 2433 | 1.0     | 0.5     | 0.5     |
| 0 | 0 | 4 | 1 | TTACCGAAGG  | 2434 | #DIV/0! | 0.3     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 5 | 0 | 0 | 0 | TTACTTGTA   | 2435 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 3 | 3 | TTAGCATAGT  | 2436 | 1.0     | 3.0     | 3.0     |
| 2 | 1 | 2 | 2 | TTAGTAGCGA  | 2437 | 0.5     | 2.0     | 1.0     |
| 2 | 1 | 2 | 2 | TTAGTTCTAT  | 2438 | 0.5     | 2.0     | 1.0     |
| 2 | 3 | 0 | 0 | TTATGTATTG  | 2439 | 1.5     | 0.0     | 0.0     |
| 4 | 1 | 0 | 0 | TTCAAAATTA  | 2440 | 0.3     | 0.0     | 0.0     |
| 3 | 2 | 0 | 0 | TTCAAGTAGG  | 2441 | 0.7     | 0.0     | 0.0     |
| 0 | 3 | 2 | 2 | TTCCAAACTA  | 2442 | #DIV/0! | 0.7     | #DIV/0! |
| 0 | 3 | 2 | 2 | TTCCCTGCCTC | 2443 | #DIV/0! | 0.7     | #DIV/0! |
| 2 | 1 | 2 | 2 | TTGGTTCCACC | 2444 | 0.5     | 2.0     | 1.0     |
| 1 | 4 | 0 | 0 | TTGATCTATC  | 2445 | 4.0     | 0.0     | 0.0     |
| 1 | 2 | 2 | 2 | TTGCAACCAA  | 2446 | 2.0     | 1.0     | 2.0     |
| 1 | 1 | 3 | 3 | TTGCTAAAGA  | 2447 | 1.0     | 3.0     | 3.0     |
| 2 | 1 | 2 | 2 | TTGGATTGT   | 2448 | 0.5     | 2.0     | 1.0     |
| 0 | 3 | 2 | 2 | TTGGGTAAAA  | 2449 | #DIV/0! | 0.7     | #DIV/0! |
| 2 | 3 | 0 | 0 | TTTAATAGAG  | 2450 | 1.5     | 0.0     | 0.0     |
| 4 | 0 | 1 | 1 | TTTAATTACC  | 2451 | 0.0     | #DIV/0! | 0.3     |
| 3 | 2 | 0 | 0 | TTTCCATCAA  | 2452 | 0.7     | 0.0     | 0.0     |
| 1 | 1 | 3 | 3 | TTTCTAATCC  | 2453 | 1.0     | 3.0     | 3.0     |
| 1 | 2 | 2 | 2 | TTTGGATTCC  | 2454 | 2.0     | 1.0     | 2.0     |
| 4 | 0 | 1 | 1 | TTTTACGTAT  | 2455 | 0.0     | #DIV/0! | 0.3     |
| 2 | 1 | 2 | 2 | TTTTAGTGAA  | 2456 | 0.5     | 2.0     | 1.0     |
| 2 | 2 | 1 | 1 | TTTTATATAT  | 2457 | 1.0     | 0.5     | 0.5     |
| 2 | 2 | 1 | 1 | TTTTGTATCC  | 2458 | 1.0     | 0.5     | 0.5     |
| 1 | 4 | 0 | 0 | TTTTTCGATT  | 2459 | 4.0     | 0.0     | 0.0     |
| 3 | 1 | 0 | 0 | AAAACTTCT   | 2460 | 0.3     | 0.0     | 0.0     |
| 2 | 2 | 0 | 0 | AAAAATAAAG  | 2461 | 1.0     | 0.0     | 0.0     |
| 1 | 3 | 0 | 0 | AAAAATCCAG  | 2462 | 3.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 2 | 1 | 1 | AAAAATTTTG | 2463 | 0.5     | 1.0     | 0.5     |
| 1 | 1 | 2 | AAAAGAAGCT | 2464 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | AAAAGACCGT | 2465 | 0.5     | 1.0     | 0.5     |
| 1 | 1 | 2 | AAAAGGTTGT | 2466 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | AAAAGTTTGG | 2467 | 0.5     | 1.0     | 0.5     |
| 0 | 3 | 1 | AAAATAGCGA | 2468 | #DIV/0! | 0.3     | #DIV/0! |
| 4 | 0 | 0 | AAAATATGGT | 2469 | 0.0     | #DIV/0! | 0.0     |
| 2 | 1 | 1 | AAACTTTTGT | 2470 | 0.5     | 1.0     | 0.5     |
| 2 | 2 | 0 | AAAGAAATTT | 2471 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | AAAGAATTTT | 2472 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 2 | AAAGACCCAT | 2473 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 2 | AAAGGTTAAG | 2474 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 2 | AAAGTTCAAG | 2475 | 1.0     | 2.0     | 2.0     |
| 1 | 2 | 1 | AAATAGGAAT | 2476 | 2.0     | 0.5     | 1.0     |
| 2 | 2 | 0 | AAATCACAGG | 2477 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | AAATTATCAC | 2478 | 1.0     | 2.0     | 2.0     |
| 3 | 0 | 1 | AAATTGAAAC | 2479 | 0.0     | #DIV/0! | 0.3     |
| 2 | 1 | 1 | AAATTGAAGA | 2480 | 0.5     | 1.0     | 0.5     |
| 1 | 0 | 3 | AACAAGATTG | 2481 | 0.0     | #DIV/0! | 3.0     |
| 0 | 2 | 2 | AACATAGCCC | 2482 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | AACATTTACA | 2483 | 1.0     | 2.0     | 2.0     |
| 3 | 1 | 0 | AACCAAAAAA | 2484 | 0.3     | 0.0     | 0.0     |
| 2 | 1 | 1 | AACGCTTCGA | 2485 | 0.5     | 1.0     | 0.5     |
| 1 | 0 | 3 | AACGGGAAAT | 2486 | 0.0     | #DIV/0! | 3.0     |
| 3 | 1 | 0 | AACTACTTGA | 2487 | 0.3     | 0.0     | 0.0     |
| 1 | 1 | 2 | AACTCTGCCT | 2488 | 1.0     | 2.0     | 2.0     |
| 1 | 2 | 1 | AACTGTACTA | 2489 | 2.0     | 0.5     | 1.0     |
| 2 | 0 | 2 | AAGAAGGTTT | 2490 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | 3 | AAGAGCTTTT  | 2491 | #DIV/0! | 3.0     | #DIV/0! |
| 0 | 0 | 0 | 4 | AAGATAGCAA  | 2492 | #DIV/0! |         | #DIV/0! |
| 3 | 0 | 0 | 1 | AAGATTCAT   | 2493 | 0.0     | #DIV/0! | 0.3     |
| 3 | 0 | 0 | 1 | AAGCCAGCCG  | 2494 | 0.0     | #DIV/0! | 0.3     |
| 2 | 0 | 0 | 2 | AAGGCAGAAA  | 2495 | 0.0     | #DIV/0! | 1.0     |
| 0 | 3 | 3 | 1 | AAGGCTATCA  | 2496 | #DIV/0! | 0.3     | #DIV/0! |
| 2 | 2 | 0 | 0 | AAGTACTGAA  | 2497 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | 2 | AAGTTAGGAA  | 2498 | 1.0     | 2.0     | 2.0     |
| 1 | 2 | 2 | 1 | AAGTTCATAA  | 2499 | 2.0     | 0.5     | 1.0     |
| 2 | 2 | 0 | 0 | AAGTTGTTAA  | 2500 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 0 | 0 | AAGTTTTTAG  | 2501 | 1.0     | 0.0     | 0.0     |
| 1 | 2 | 2 | 1 | AATACITTTAA | 2502 | 2.0     | 0.5     | 1.0     |
| 2 | 1 | 1 | 1 | AATCTATGGG  | 2503 | 0.5     | 1.0     | 0.5     |
| 0 | 3 | 3 | 1 | AATCTTATAA  | 2504 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 3 | 0 | 0 | AATTATACAG  | 2505 | 3.0     | 0.0     | 0.0     |
| 3 | 1 | 0 | 0 | AATTCACATT  | 2506 | 0.3     | 0.0     | 0.0     |
| 0 | 0 | 4 | 4 | AATTGCCACC  | 2507 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 4 | 0 | 0 | AATTTCTCCA  | 2508 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 2 | 2 | AATTTGTAC   | 2509 | 1.0     | 2.0     | 2.0     |
| 3 | 0 | 1 | 1 | AATTTTGAT   | 2510 | 0.0     | #DIV/0! | 0.3     |
| 2 | 2 | 0 | 0 | ACAAAAAAA   | 2511 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 2 | 2 | ACAACAACATA | 2512 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 3 | 0 | 0 | ACAATTTTAT  | 2513 | 3.0     | 0.0     | 0.0     |
| 0 | 3 | 1 | 1 | ACACCAAGAG  | 2514 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 3 | 0 | 0 | ACAGCGGAGG  | 2515 | 3.0     | 0.0     | 0.0     |
| 0 | 2 | 2 | 2 | ACCACTGGTG  | 2516 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | 2 | ACCAGGGTCC  | 2517 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | 1 | ACCCCTGTCT  | 2518 | 0.5     | 1.0     | 0.5     |



Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 3 | 1 | ACCTACCGT   | 2519 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 2 | 1 | ACGAGAGGAG  | 2520 | 2.0     | 0.5     | 1.0     |
| 4 | 0 | 0 | ACGCTCCCAA  | 2521 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 2 | ACGGAGATGA  | 2522 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 4 | 0 | ACGTTACGCA  | 2523 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 3 | 1 | ACGTTTTTTA  | 2524 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 0 | 4 | ACTAAGCCAG  | 2525 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 4 | 0 | ACTCACATTAC | 2526 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 3 | 0 | ACTGATGCTT  | 2527 | 3.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | ACTTCGATGA  | 2528 | 0.0     | #DIV/0! | 1.0     |
| 2 | 2 | 0 | AGAAACAGGA  | 2529 | 1.0     | 0.0     | 0.0     |
| 0 | 3 | 1 | AGAAATGGGT  | 2530 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 0 | 3 | AGAACAAAG   | 2531 | 0.0     | #DIV/0! | 3.0     |
| 3 | 0 | 1 | AGAACAGCAA  | 2532 | 0.0     | #DIV/0! | 0.3     |
| 2 | 1 | 1 | AGACACGAAA  | 2533 | 0.5     | 1.0     | 0.5     |
| 1 | 2 | 1 | AGACTCATCC  | 2534 | 2.0     | 0.5     | 1.0     |
| 0 | 0 | 4 | AGAGACATTC  | 2535 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 3 | 0 | AGAGAGGCCC  | 2536 | 3.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | AGAGGAAGTA  | 2537 | 1.0     | 2.0     | 2.0     |
| 3 | 1 | 0 | AGATGGGCGA  | 2538 | 0.3     | 0.0     | 0.0     |
| 2 | 0 | 2 | AGCATCGGTG  | 2539 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 2 | AGCCGAGATA  | 2540 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 2 | AGGAAAAGAA  | 2541 | 1.0     | 2.0     | 2.0     |
| 0 | 3 | 1 | AGGACAAGGA  | 2542 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 3 | 1 | AGGTCAGACA  | 2543 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 1 | 3 | AGGTGACAAT  | 2544 | #DIV/0! | 3.0     | #DIV/0! |
| 1 | 2 | 1 | AGGTTTATCT  | 2545 | 2.0     | 0.5     | 1.0     |
| 2 | 1 | 1 | AGTATCATAC  | 2546 | 0.5     | 1.0     | 0.5     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 3 | 1 | 1 | AGTCCATCAA  | 2547 | #DIV/0! | 0.3     | #DIV/0! |
| 3 | 1 | 0 | 0 | AGTCCGGAGT  | 2548 | 0.3     | 0.0     | 0.0     |
| 2 | 2 | 0 | 0 | AGTCGTCGCA  | 2549 | 1.0     | 0.0     | 0.0     |
| 1 | 3 | 0 | 0 | ATAAACGTTT  | 2550 | 3.0     | 0.0     | 0.0     |
| 2 | 2 | 0 | 0 | ATAATCATTC  | 2551 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | 2 | ATAGCCGAGT  | 2552 | 1.0     | 2.0     | 2.0     |
| 3 | 0 | 1 | 1 | ATAGGATATA  | 2553 | 0.0     | #DIV/0! | 0.3     |
| 2 | 2 | 0 | 0 | ATATAAATTT  | 2554 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 0 | 0 | ATATAGCTAC  | 2555 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 4 | 4 | ATATAGCTGC  | 2556 | #DIV/0! | #DIV/0! | #DIV/0! |
| 3 | 1 | 0 | 0 | ATATTTTATT  | 2557 | 0.3     | 0.0     | 0.0     |
| 3 | 1 | 0 | 0 | ATATTTTCGT  | 2558 | 0.3     | 0.0     | 0.0     |
| 1 | 1 | 2 | 2 | ATCCACTTGC  | 2559 | 1.0     | 2.0     | 2.0     |
| 1 | 2 | 1 | 1 | ATCCTATTTT  | 2560 | 2.0     | 0.5     | 1.0     |
| 1 | 0 | 3 | 3 | ATCGCTGGTA  | 2561 | 0.0     | #DIV/0! | 3.0     |
| 2 | 1 | 1 | 1 | ATCGTCCACC  | 2562 | 0.5     | 1.0     | 0.5     |
| 2 | 0 | 2 | 2 | ATGAAAAATC  | 2563 | 0.0     | #DIV/0! | 1.0     |
| 3 | 0 | 1 | 1 | ATGAATCCGT  | 2564 | 0.0     | #DIV/0! | 0.3     |
| 1 | 3 | 0 | 0 | ATGACATTCA  | 2565 | 3.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | 2 | ATGGATATAT  | 2566 | 1.0     | 2.0     | 2.0     |
| 2 | 2 | 0 | 0 | ATGGATGGAT  | 2567 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 4 | 4 | ATGGGCTTCA  | 2568 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 2 | 1 | 1 | ATGGTGTGGC  | 2569 | 2.0     | 0.5     | 1.0     |
| 3 | 1 | 0 | 0 | ATTAAAAAAA  | 2570 | 0.3     | 0.0     | 0.0     |
| 0 | 4 | 0 | 0 | ATTGCGCAGAT | 2571 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 3 | 3 | ATTCTTCAGA  | 2572 | 0.0     | #DIV/0! | 3.0     |
| 1 | 2 | 1 | 1 | ATTGATGCTT  | 2573 | 2.0     | 0.5     | 1.0     |
| 1 | 3 | 0 | 0 | ATTGCGCAGAT | 2574 | 3.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 4 | 0 | 0 | 0 | ATTGATTC    | 2575 | 0.0     | #DIV/0! | 0.0     |
| 1 | 2 | 1 | 1 | ATTTTGAGC   | 2576 | 2.0     | 0.5     | 1.0     |
| 0 | 2 | 2 | 2 | CAAAACCCAC  | 2577 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 2 | 2 | CAAAATTAAC  | 2578 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 2 | 2 | CAAGCATCCA  | 2579 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | 2 | CAATGGCTGA  | 2580 | 1.0     | 2.0     | 2.0     |
| 0 | 2 | 2 | 2 | CAATCCGAG   | 2581 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 2 | 1 | 1 | CACAAGAAAA  | 2582 | 2.0     | 0.5     | 1.0     |
| 1 | 3 | 0 | 0 | CACATATAGC  | 2583 | 3.0     | 0.0     | 0.0     |
| 0 | 2 | 2 | 2 | CACATCATAA  | 2584 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 3 | 0 | 0 | CACTGTATAA  | 2585 | 3.0     | 0.0     | 0.0     |
| 1 | 0 | 3 | 3 | CAGAAATGCG  | 2586 | 0.0     | #DIV/0! | 3.0     |
| 1 | 1 | 2 | 2 | CAGAAGGTCA  | 2587 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 2 | 2 | CAGACAAAGT  | 2588 | 1.0     | 2.0     | 2.0     |
| 1 | 3 | 0 | 0 | CAGCTCAAGC  | 2589 | 3.0     | 0.0     | 0.0     |
| 0 | 3 | 1 | 1 | CAGGATACCA  | 2590 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 4 | 0 | 0 | CAGTAATGTT  | 2591 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 1 | 0 | 0 | CAGTGATGCA  | 2592 | 0.3     | 0.0     | 0.0     |
| 3 | 1 | 0 | 0 | CATAATAATT  | 2593 | 0.3     | 0.0     | 0.0     |
| 3 | 1 | 0 | 0 | CATATAAAAA  | 2594 | 0.3     | 0.0     | 0.0     |
| 1 | 1 | 2 | 2 | CATCTTACCC  | 2595 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | 1 | CATTTGAAGC  | 2596 | 0.5     | 1.0     | 0.5     |
| 1 | 3 | 0 | 0 | CCAAAAAATA  | 2597 | 3.0     | 0.0     | 0.0     |
| 0 | 1 | 3 | 3 | CCAATGATGA  | 2598 | #DIV/0! | 3.0     | #DIV/0! |
| 2 | 0 | 2 | 2 | CCACAACCTGA | 2599 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 2 | 2 | CCACTACCGT  | 2600 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 4 | 0 | 0 | CCACTTTGGT  | 2601 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 2 | 0 | 0 | CCAGAAGATG  | 2602 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 3 | 0 | CCATACTGGA  | 2603 | 3.0     | 0.0     | 0.0     |
| 2 | 1 | 1 | CCATCTTAAG  | 2604 | 0.5     | 1.0     | 0.5     |
| 1 | 1 | 2 | CCCAAGATAA  | 2605 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | CCCCAAAAA   | 2606 | 0.5     | 1.0     | 0.5     |
| 1 | 3 | 0 | CCCTCTGTGA  | 2607 | 3.0     | 0.0     | 0.0     |
| 1 | 2 | 1 | CCGTCGAGAG  | 2608 | 2.0     | 0.5     | 1.0     |
| 2 | 1 | 1 | CCTAATACT   | 2609 | 0.5     | 1.0     | 0.5     |
| 0 | 3 | 1 | CCTATTGAG   | 2610 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 2 | 1 | CCTCTTCTCC  | 2611 | 2.0     | 0.5     | 1.0     |
| 0 | 4 | 0 | CCTGAAGAAA  | 2612 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 2 | CCTGCAATGG  | 2613 | 1.0     | 2.0     | 2.0     |
| 1 | 2 | 1 | CCTTCACTGC  | 2614 | 2.0     | 0.5     | 1.0     |
| 1 | 1 | 2 | CCTTGAACATA | 2615 | 1.0     | 2.0     | 2.0     |
| 0 | 1 | 3 | CCTTTTCAAT  | 2616 | #DIV/0! | 3.0     | #DIV/0! |
| 0 | 3 | 1 | CGAAAAGGCT  | 2617 | #DIV/0! | 0.3     | #DIV/0! |
| 2 | 1 | 1 | CGAAACTAAA  | 2618 | 0.5     | 1.0     | 0.5     |
| 1 | 3 | 0 | CGATTCAGTT  | 2619 | 3.0     | 0.0     | 0.0     |
| 1 | 0 | 3 | CGCAACTGGT  | 2620 | 0.0     | #DIV/0! | 3.0     |
| 1 | 1 | 2 | CGCCACGGTA  | 2621 | 1.0     | 2.0     | 2.0     |
| 3 | 1 | 0 | CGCGGCAATT  | 2622 | 0.3     | 0.0     | 0.0     |
| 0 | 1 | 3 | CGCGTTCGAA  | 2623 | #DIV/0! | 3.0     | #DIV/0! |
| 1 | 1 | 2 | CGCGGTTTCT  | 2624 | 1.0     | 2.0     | 2.0     |
| 0 | 2 | 2 | CGCGGTAGAT  | 2625 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | CGGCTGAGGA  | 2626 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 2 | CGGTACCAAA  | 2627 | 1.0     | 2.0     | 2.0     |
| 0 | 2 | 2 | CGTGCAGCTC  | 2628 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | CGTGTATTTT  | 2629 | 1.0     | 2.0     | 2.0     |
| 0 | 0 | 4 | CGTTCTACTA  | 2630 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 2 | 0 | 2 | CTAAGAATG   | 2631 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 2 | CTAGCAGCTA  | 2632 | 1.0     | 2.0     | 2.0     |
| 1 | 2 | 1 | CTAGGTCCTA  | 2633 | 2.0     | 0.5     | 1.0     |
| 3 | 1 | 0 | CTAGTTTCTA  | 2634 | 0.3     | 0.0     | 0.0     |
| 2 | 0 | 2 | CTCACACAAT  | 2635 | 0.0     | #DIV/0! | 1.0     |
| 0 | 4 | 0 | CTCATTGAAA  | 2636 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 1 | 0 | CTCTACTGCC  | 2637 | 0.3     | 0.0     | 0.0     |
| 1 | 2 | 1 | CTCTATTGCG  | 2638 | 2.0     | 0.5     | 1.0     |
| 1 | 0 | 3 | CTCTGCCCCC  | 2639 | 0.0     | #DIV/0! | 3.0     |
| 1 | 1 | 2 | CTGAAAAGT   | 2640 | 1.0     | 2.0     | 2.0     |
| 0 | 2 | 2 | CTGAAGCAGA  | 2641 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 2 | 0 | CTGAGTACAA  | 2642 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 0 | CTGCCAGTCT  | 2643 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 0 | CTTACTGCAA  | 2644 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | CTTAGCGCCG  | 2645 | 0.0     | #DIV/0! | 1.0     |
| 1 | 3 | 0 | CTTCITTTGA  | 2646 | 3.0     | 0.0     | 0.0     |
| 1 | 2 | 1 | CTTGTATGTG  | 2647 | 2.0     | 0.5     | 1.0     |
| 2 | 2 | 0 | CTTTATTTTT  | 2648 | 1.0     | 0.0     | 0.0     |
| 1 | 3 | 0 | CTTTGTTACA  | 2649 | 3.0     | 0.0     | 0.0     |
| 2 | 1 | 1 | GAAAAATACT  | 2650 | 0.5     | 1.0     | 0.5     |
| 2 | 1 | 1 | GAAAAGCACG  | 2651 | 0.5     | 1.0     | 0.5     |
| 0 | 1 | 3 | GAAAAGGTCA  | 2652 | #DIV/0! | 3.0     | #DIV/0! |
| 0 | 2 | 2 | GAAACCCAGG  | 2653 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 2 | GAAAGAAGAC  | 2654 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 1 | 1 | GAAAGCAACG  | 2655 | 0.5     | 1.0     | 0.5     |
| 1 | 2 | 1 | GAAATAACTG  | 2656 | 2.0     | 0.5     | 1.0     |
| 1 | 2 | 1 | GAACAGATTT  | 2657 | 2.0     | 0.5     | 1.0     |
| 0 | 1 | 3 | GAACCTCCACA | 2658 | #DIV/0! | 3.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 3 | GAAGACGGTG | 2659 | 0.0     | #DIV/0! | 3.0     |
| 2 | 2 | 0 | GAAGCCTGTT | 2660 | 1.0     | 0.0     | 0.0     |
| 1 | 2 | 1 | GAAGGTCGTT | 2661 | 2.0     | 0.5     | 1.0     |
| 1 | 2 | 1 | GAAGTAGAAG | 2662 | 2.0     | 0.5     | 1.0     |
| 0 | 1 | 3 | GAAGTATTGA | 2663 | #DIV/0! | 3.0     | #DIV/0! |
| 2 | 1 | 1 | GAATACCTGG | 2664 | 0.5     | 1.0     | 0.5     |
| 2 | 0 | 2 | GAATGCAGCT | 2665 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 2 | GAATTGAGGG | 2666 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 2 | GAATTGGAGA | 2667 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 2 | GAATTGTTTT | 2668 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 3 | GACAAGAAGA | 2669 | 0.0     | #DIV/0! | 3.0     |
| 3 | 1 | 0 | GACATAGAAT | 2670 | 0.3     | 0.0     | 0.0     |
| 2 | 2 | 0 | GACGAGCACA | 2671 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | GACGGTGACA | 2672 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 2 | GACTTAACCA | 2673 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 2 | GAGACAAACT | 2674 | 0.0     | #DIV/0! | 1.0     |
| 3 | 0 | 1 | GAGAGTAAGA | 2675 | 0.0     | #DIV/0! | 0.3     |
| 0 | 4 | 0 | GAGGACTTAA | 2676 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 3 | GAGGCCAACG | 2677 | 0.0     | #DIV/0! | 3.0     |
| 0 | 0 | 4 | GAGTTTGCC  | 2678 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 2 | 1 | GATACCCAAG | 2679 | 2.0     | 0.5     | 1.0     |
| 2 | 0 | 2 | GATCAGGGTA | 2680 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 2 | GATCCAGTTG | 2681 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 1 | 1 | GATGAATTCA | 2682 | 0.5     | 1.0     | 0.5     |
| 3 | 1 | 0 | GCAAAATGGA | 2683 | 0.3     | 0.0     | 0.0     |
| 0 | 2 | 2 | GCAAAGCCTC | 2684 | #DIV/0! | 1.0     | #DIV/0! |
| 3 | 0 | 1 | GCACCAAAGA | 2685 | 0.0     | #DIV/0! | 0.3     |
| 0 | 1 | 3 | GCACCGGCCG | 2686 | #DIV/0! | 3.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 2 | 2 | 2 | GCAGATAGAA | 2687 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | 2 | GCAGCACTGT | 2688 | 1.0     | 2.0     | 2.0     |
| 3 | 1 | 0 | 0 | GCAGGAGAAG | 2689 | 0.3     | 0.0     | 0.0     |
| 0 | 0 | 4 | 4 | GCATTGATGT | 2690 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 1 | 1 | 1 | GCATTTAGAT | 2691 | 0.5     | 1.0     | 0.5     |
| 2 | 1 | 1 | 1 | GCCAAGAAAT | 2692 | 0.5     | 1.0     | 0.5     |
| 0 | 1 | 3 | 3 | GCCAAGTTGG | 2693 | #DIV/0! | 3.0     | #DIV/0! |
| 1 | 1 | 2 | 2 | GCCAGGGGTA | 2694 | 1.0     | 2.0     | 2.0     |
| 2 | 0 | 2 | 2 | GCCCGATAAC | 2695 | 0.0     | #DIV/0! | 1.0     |
| 2 | 1 | 1 | 1 | GCCGGCAGAC | 2696 | 0.5     | 1.0     | 0.5     |
| 2 | 2 | 0 | 0 | GCGAAATCGA | 2697 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | 2 | GCGAACCAAC | 2698 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 2 | 2 | GCGAAGTTAA | 2699 | 0.0     | #DIV/0! | 1.0     |
| 1 | 2 | 1 | 1 | GCGATGCCAC | 2700 | 2.0     | 0.5     | 1.0     |
| 0 | 1 | 3 | 3 | GCTACATCAC | 2701 | #DIV/0! | 3.0     | #DIV/0! |
| 1 | 3 | 0 | 0 | GCTATGCAAC | 2702 | 3.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | 2 | GCTCAGTGGT | 2703 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 3 | 3 | GCTTGACATC | 2704 | #DIV/0! | 3.0     | #DIV/0! |
| 2 | 0 | 2 | 2 | GCTTTGAAAA | 2705 | 0.0     | #DIV/0! | 1.0     |
| 3 | 1 | 0 | 0 | GCTTTGAAAT | 2706 | 0.3     | 0.0     | 0.0     |
| 1 | 2 | 1 | 1 | GGAAAAAGTA | 2707 | 2.0     | 0.5     | 1.0     |
| 1 | 1 | 2 | 2 | GGACAATCAG | 2708 | 1.0     | 2.0     | 2.0     |
| 0 | 1 | 3 | 3 | GGACTCGTTA | 2709 | #DIV/0! | 3.0     | #DIV/0! |
| 3 | 1 | 0 | 0 | GGACTGTGTA | 2710 | 0.3     | 0.0     | 0.0     |
| 2 | 2 | 0 | 0 | GGAGGTCCGC | 2711 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 0 | 0 | GGAGTAGTTA | 2712 | 1.0     | 0.0     | 0.0     |
| 1 | 2 | 1 | 1 | GGATCAAGAA | 2713 | 2.0     | 0.5     | 1.0     |
| 1 | 3 | 0 | 0 | GGCAAAACAG | 2714 | 3.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 3 | GGCAACAGCA | 2715 | #DIV/0! | 3.0     | #DIV/0! |
| 2 | 1 | 1 | GGCAAGATTG | 2716 | 0.5     | 1.0     | 0.5     |
| 4 | 0 | 0 | GGCAGGTAGC | 2717 | 0.0     | #DIV/0! | 0.0     |
| 2 | 2 | 0 | GGCAGTTTAC | 2718 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | GGCATACAAT | 2719 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 2 | GGCGAGCGAA | 2720 | 1.0     | 2.0     | 2.0     |
| 3 | 0 | 1 | GGCGATAACG | 2721 | 0.0     | #DIV/0! | 0.3     |
| 1 | 2 | 1 | GGCGCTGCAA | 2722 | 2.0     | 0.5     | 1.0     |
| 1 | 1 | 2 | GGCTTCGGTT | 2723 | 1.0     | 2.0     | 2.0     |
| 2 | 0 | 2 | GGCCTCTGA  | 2724 | 0.0     | #DIV/0! | 1.0     |
| 0 | 4 | 0 | GGGTAGTACT | 2725 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 1 | 1 | GGGTTTCGGT | 2726 | 0.5     | 1.0     | 0.5     |
| 1 | 1 | 2 | GGGTTTGGT  | 2727 | 1.0     | 2.0     | 2.0     |
| 0 | 2 | 2 | GGTAATGCTA | 2728 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 2 | GGTATATTCA | 2729 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | GGTCAGTAAA | 2730 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | GGTCCGGCTT | 2731 | 0.5     | 1.0     | 0.5     |
| 2 | 2 | 0 | GGTGAACCG  | 2732 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | GGTGACATAC | 2733 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | GGTGCTAAGG | 2734 | 0.5     | 1.0     | 0.5     |
| 2 | 0 | 2 | GGTGCTTCCG | 2735 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 3 | GGTTAGTCGG | 2736 | #DIV/0! | 3.0     | #DIV/0! |
| 1 | 0 | 3 | GGTTACCAA  | 2737 | 0.0     | #DIV/0! | 3.0     |
| 0 | 2 | 2 | GTACCCCTCC | 2738 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 1 | 1 | GTACGCTGTG | 2739 | 0.5     | 1.0     | 0.5     |
| 1 | 2 | 1 | GTACTATTTT | 2740 | 2.0     | 0.5     | 1.0     |
| 2 | 1 | 1 | GTACTGGTGC | 2741 | 0.5     | 1.0     | 0.5     |
| 1 | 2 | 1 | GTAGCAGCAA | 2742 | 2.0     | 0.5     | 1.0     |



Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 2 | 1 | GTATAATAAA | 2743 | 2.0     | 0.5     | 1.0     |
| 2 | 2 | 0 | GTATTTTGAA | 2744 | 1.0     | 0.0     | 0.0     |
| 2 | 1 | 1 | GTATTTTGGC | 2745 | 0.5     | 1.0     | 0.5     |
| 0 | 2 | 2 | GTCCATAATA | 2746 | #DIV/0! | 1.0     | #DIV/0! |
| 4 | 0 | 0 | GTCCATCCTG | 2747 | 0.0     | #DIV/0! | 0.0     |
| 1 | 2 | 1 | GTGCTGCGGT | 2748 | 2.0     | 0.5     | 1.0     |
| 1 | 2 | 1 | GTCTACTCTT | 2749 | 2.0     | 0.5     | 1.0     |
| 1 | 1 | 2 | GTCTCCTTGT | 2750 | 1.0     | 2.0     | 2.0     |
| 3 | 0 | 1 | GTGAAGGATA | 2751 | 0.0     | #DIV/0! | 0.3     |
| 0 | 2 | 2 | GTGAGGAGAA | 2752 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 2 | GTGATAGTCT | 2753 | 1.0     | 2.0     | 2.0     |
| 0 | 3 | 1 | GTGCCGCTGG | 2754 | #DIV/0! | 0.3     | #DIV/0! |
| 1 | 0 | 3 | GTGCCAGCTT | 2755 | 0.0     | #DIV/0! | 3.0     |
| 2 | 2 | 0 | GTGGTATCAC | 2756 | 1.0     | 0.0     | 0.0     |
| 3 | 0 | 1 | GTGGTTTACT | 2757 | 0.0     | #DIV/0! | 0.3     |
| 1 | 1 | 2 | GTGTTGAAAT | 2758 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | GTTAAATACA | 2759 | 0.5     | 1.0     | 0.5     |
| 3 | 1 | 0 | GTTATCCCAA | 2760 | 0.3     | 0.0     | 0.0     |
| 1 | 2 | 1 | GTTCAAACCG | 2761 | 2.0     | 0.5     | 1.0     |
| 1 | 0 | 3 | GTTCCACCAC | 2762 | 0.0     | #DIV/0! | 3.0     |
| 2 | 1 | 1 | GTTGATATT  | 2763 | 0.5     | 1.0     | 0.5     |
| 0 | 2 | 2 | GTTCTGCACC | 2764 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 3 | 1 | GTTCTTGATC | 2765 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 2 | 2 | GTTCTTGCCT | 2766 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 2 | GTTGGAGAAC | 2767 | #DIV/0! | 1.0     | #DIV/0! |
| 3 | 0 | 1 | GTTGTTGAGG | 2768 | 0.0     | #DIV/0! | 0.3     |
| 4 | 0 | 0 | GTTTAGGTAC | 2769 | 0.0     | #DIV/0! | 0.0     |
| 2 | 1 | 1 | GTTTCTAAAA | 2770 | 0.5     | 1.0     | 0.5     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 2 | 2 | 0 | GTTGACCT    | 2771 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 3 | GTTTAGCTT   | 2772 | 0.0     | #DIV/0! | 3.0     |
| 2 | 1 | 1 | TAAAGATCTA  | 2773 | 0.5     | 1.0     | 0.5     |
| 0 | 2 | 2 | TAACCACTCT  | 2774 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 2 | 1 | TAACGGCTAG  | 2775 | 2.0     | 0.5     | 1.0     |
| 1 | 2 | 1 | TAACCTCGTAT | 2776 | 2.0     | 0.5     | 1.0     |
| 3 | 0 | 1 | TAAGACCAAA  | 2777 | 0.0     | #DIV/0! | 0.3     |
| 0 | 2 | 2 | TAGAAACCAG  | 2778 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 2 | 1 | TAGATTAAAG  | 2779 | 2.0     | 0.5     | 1.0     |
| 1 | 1 | 2 | TAGCGCAACC  | 2780 | 1.0     | 2.0     | 2.0     |
| 1 | 2 | 1 | TAGGAACCTAT | 2781 | 2.0     | 0.5     | 1.0     |
| 2 | 2 | 0 | TAGTTTGTG   | 2782 | 1.0     | 0.0     | 0.0     |
| 3 | 0 | 1 | TATAACTAGT  | 2783 | 0.0     | #DIV/0! | 0.3     |
| 0 | 2 | 2 | TATAGGTCAC  | 2784 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 3 | 1 | TATATTAATT  | 2785 | #DIV/0! | 0.3     | #DIV/0! |
| 2 | 1 | 1 | TATATTTTTC  | 2786 | 0.5     | 1.0     | 0.5     |
| 0 | 4 | 0 | TATCACCATA  | 2787 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 2 | TATCTTAGAC  | 2788 | 0.0     | #DIV/0! | 1.0     |
| 2 | 2 | 0 | TATCTTTTGG  | 2789 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | TATGTCGGTG  | 2790 | 1.0     | 2.0     | 2.0     |
| 2 | 2 | 0 | TATGTTTGCA  | 2791 | 1.0     | 0.0     | 0.0     |
| 1 | 3 | 0 | TATTAGTTGG  | 2792 | 3.0     | 0.0     | 0.0     |
| 3 | 1 | 0 | TCAAAAAAAA  | 2793 | 0.3     | 0.0     | 0.0     |
| 1 | 3 | 0 | TCAAATTTGT  | 2794 | 3.0     | 0.0     | 0.0     |
| 2 | 0 | 2 | TCAAGAAGAT  | 2795 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 2 | TCAATGAAAT  | 2796 | 0.0     | #DIV/0! | 1.0     |
| 1 | 3 | 0 | TCATTCATAC  | 2797 | 3.0     | 0.0     | 0.0     |
| 0 | 2 | 2 | TCCAAAAGTT  | 2798 | #DIV/0! | 1.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|---------|
| 4 | 4 | 0 | 0 | 0 | TCCATACCTG  | 2799 | 0.0     | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 4 | 0 | 0 | TCCCTAATTA  | 2800 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 2 | 2 | 1 | 1 | 1 | TCCGCTTCAT  | 2801 | 0.5     | 1.0     | 1.0     | 0.5     |
| 2 | 2 | 1 | 1 | 1 | TCGATTCTGG  | 2802 | 0.5     | 1.0     | 1.0     | 0.5     |
| 0 | 0 | 2 | 2 | 2 | TCGCGAGACC  | 2803 | #DIV/0! | 1.0     | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 2 | 2 | TCTGCAGACA  | 2804 | 1.0     | 2.0     | 2.0     | 2.0     |
| 1 | 1 | 0 | 3 | 3 | TCTGTCGAAA  | 2805 | 0.0     | #DIV/0! | #DIV/0! | 3.0     |
| 3 | 3 | 0 | 0 | 1 | TCTGTTGACG  | 2806 | 0.0     | #DIV/0! | 3.0     | 0.3     |
| 0 | 0 | 1 | 3 | 3 | TCTTGAGATC  | 2807 | #DIV/0! | 3.0     | 3.0     | #DIV/0! |
| 1 | 1 | 0 | 3 | 3 | TCTTGGATGC  | 2808 | 0.0     | #DIV/0! | #DIV/0! | 3.0     |
| 1 | 1 | 1 | 2 | 2 | TCTTTGC GAA | 2809 | 1.0     | 2.0     | 2.0     | 2.0     |
| 2 | 2 | 0 | 2 | 2 | TGAAAAAAAA  | 2810 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 0 | 3 | 1 | 1 | TGAACATCTA  | 2811 | #DIV/0! | 0.3     | 0.3     | #DIV/0! |
| 1 | 1 | 0 | 3 | 3 | TGAACATTGT  | 2812 | 0.0     | #DIV/0! | #DIV/0! | 3.0     |
| 1 | 1 | 3 | 0 | 0 | TGAACCTATA  | 2813 | 3.0     | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 3 | 1 | 1 | TGCAGGTCCT  | 2814 | #DIV/0! | 0.3     | 0.3     | #DIV/0! |
| 2 | 2 | 2 | 0 | 0 | TGCCACTCCT  | 2815 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 0 | 4 | 4 | TGCGCGTATA  | 2816 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 2 | 1 | 1 | 1 | TGGACTTGGA  | 2817 | 0.5     | 1.0     | 1.0     | 0.5     |
| 0 | 0 | 3 | 1 | 1 | TGGCCAGTCT  | 2818 | #DIV/0! | 0.3     | 0.3     | #DIV/0! |
| 0 | 0 | 1 | 3 | 3 | TGGTGCGTCT  | 2819 | #DIV/0! | 3.0     | 3.0     | #DIV/0! |
| 2 | 2 | 2 | 0 | 0 | TGGTTCAGCG  | 2820 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 4 | 0 | 0 | TGTAAC TTGG | 2821 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 2 | 2 | 1 | 1 | 1 | TGTACGTTGT  | 2822 | 0.5     | 1.0     | 1.0     | 0.5     |
| 2 | 2 | 1 | 1 | 1 | TGTACGGGAG  | 2823 | 0.5     | 1.0     | 1.0     | 0.5     |
| 1 | 1 | 0 | 3 | 3 | TGTGATAAAA  | 2824 | 0.0     | #DIV/0! | #DIV/0! | 3.0     |
| 1 | 1 | 0 | 3 | 3 | TGTTCAAGTG  | 2825 | 0.0     | #DIV/0! | #DIV/0! | 3.0     |
| 1 | 1 | 3 | 0 | 0 | TGTTCTAATA  | 2826 | 3.0     | 0.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 2 | 0 | 2 | TTAAATCTGA  | 2827 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 2 | TTAACTGTGC  | 2828 | 0.0     | #DIV/0! | 1.0     |
| 3 | 0 | 1 | TTAAGTTCCT  | 2829 | 0.0     | #DIV/0! | 0.3     |
| 1 | 2 | 1 | TTACCACCAA  | 2830 | 2.0     | 0.5     | 1.0     |
| 1 | 2 | 1 | TTAGAATAAT  | 2831 | 2.0     | 0.5     | 1.0     |
| 2 | 1 | 1 | TTAGTGAAGG  | 2832 | 0.5     | 1.0     | 0.5     |
| 2 | 1 | 1 | TTATAAGGAG  | 2833 | 0.5     | 1.0     | 0.5     |
| 2 | 2 | 0 | TTATACATTG  | 2834 | 1.0     | 0.0     | 0.0     |
| 2 | 2 | 0 | TTATTGAGTT  | 2835 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | TTATTGTTTT  | 2836 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | TTATTTC AAG | 2837 | 0.5     | 1.0     | 0.5     |
| 4 | 0 | 0 | TTATTTGCAA  | 2838 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 2 | TTCAAGTCAC  | 2839 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 3 | 0 | TTCATACAGC  | 2840 | 3.0     | 0.0     | 0.0     |
| 1 | 0 | 3 | TTCCCAAGTT  | 2841 | 0.0     | #DIV/0! | 3.0     |
| 2 | 1 | 1 | TTCCGAAGGA  | 2842 | 0.5     | 1.0     | 0.5     |
| 1 | 3 | 0 | TTGGATATGG  | 2843 | 3.0     | 0.0     | 0.0     |
| 0 | 4 | 0 | TTCTCACAAT  | 2844 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 2 | TTGATGATGA  | 2845 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 2 | TTGCAATTGG  | 2846 | 1.0     | 2.0     | 2.0     |
| 2 | 1 | 1 | TTGGACTACC  | 2847 | 0.5     | 1.0     | 0.5     |
| 1 | 2 | 1 | TTGGGAATGG  | 2848 | 2.0     | 0.5     | 1.0     |
| 1 | 1 | 2 | TTGTCAACCA  | 2849 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 2 | TTTAACTCTT  | 2850 | 1.0     | 2.0     | 2.0     |
| 1 | 1 | 2 | TTTCAGGCAA  | 2851 | 1.0     | 2.0     | 2.0     |
| 2 | 0 | 2 | TTTCCAATCA  | 2852 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 3 | TTTCTAAGCG  | 2853 | 0.0     | #DIV/0! | 3.0     |
| 2 | 1 | 1 | TTTCTCAAAA  | 2854 | 0.5     | 1.0     | 0.5     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 3 | 0 | TTTCTCTTG  | 2855 | 3.0     | 0.0     | 0.0     |
| 2 | 1 | 1 | TTTGGTGGT  | 2856 | 0.5     | 1.0     | 0.5     |
| 0 | 1 | 3 | TTTGTGGTT  | 2857 | #DIV/0! | 3.0     | #DIV/0! |
| 1 | 3 | 0 | TTTACAGTG  | 2858 | 3.0     | 0.0     | 0.0     |
| 1 | 3 | 0 | TTTACTAGC  | 2859 | 3.0     | 0.0     | 0.0     |
| 0 | 4 | 0 | TTTTATTTT  | 2860 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 3 | 1 | TTTCCACGG  | 2861 | #DIV/0! | 0.3     | #DIV/0! |
| 0 | 1 | 2 | AAAAAAGCA  | 2862 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 1 | 2 | AAACACCTG  | 2863 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 0 | 2 | AAACTTACG  | 2864 | 0.0     | #DIV/0! | 2.0     |
| 3 | 0 | 0 | AAACTTCAG  | 2865 | 0.0     | #DIV/0! | 0.0     |
| 1 | 2 | 0 | AAAGAAAAA  | 2866 | 2.0     | 0.0     | 0.0     |
| 0 | 2 | 1 | AAAGGGAAA  | 2867 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 1 | 0 | AAAGTCATT  | 2868 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | AAATATTAG  | 2869 | 0.5     | 0.0     | 0.0     |
| 0 | 1 | 2 | AAATGAATG  | 2870 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | AAACAGCTT  | 2871 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | AACTTGACA  | 2872 | 0.5     | 0.0     | 0.0     |
| 0 | 1 | 2 | AACTGTTGT  | 2873 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | AAAGAAAAGA | 2874 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | AAAGAACAAT | 2875 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | AAAGAATGCG | 2876 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | AAAGACAATG | 2877 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0 | AAAGACACCG | 2878 | 2.0     | 0.0     | 0.0     |
| 0 | 2 | 1 | AAAGCTGATA | 2879 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 2 | 1 | AAAGGAATCT | 2880 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 2 | 0 | AAAGGCATT  | 2881 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | AAAGTCCAAG | 2882 | 0.5     | 0.0     | 0.0     |



Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 3 | 0 | 0 | AAGAGTACTT  | 2911 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 2 | 2 | AAGATCAACG  | 2912 | 0.0     | #DIV/0! | 2.0     |
| 2 | 0 | 0 | 1 | 1 | AAGATCCAGA  | 2913 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | 1 | 1 | AAGCTGGAGA  | 2914 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 0 | 2 | 2 | AAGGATTATT  | 2915 | 0.0     | #DIV/0! | 2.0     |
| 3 | 0 | 0 | 0 | 0 | AAGGTACTTA  | 2916 | 0.0     | #DIV/0! | 0.0     |
| 3 | 0 | 0 | 0 | 0 | AAGTCATTAA  | 2917 | 0.0     | #DIV/0! | 0.0     |
| 2 | 1 | 1 | 0 | 0 | AAGTCTTTGA  | 2918 | 0.5     | 0.0     | 0.0     |
| 0 | 1 | 1 | 2 | 2 | AAGTTAGCAA  | 2919 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 0 | 0 | 2 | 2 | AAGTTATTGT  | 2920 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 2 | 0 | 0 | AATAGCCCGA  | 2921 | 2.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | 2 | 2 | AATATGAAGT  | 2922 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 1 | 0 | 0 | AATCCGATAT  | 2923 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | 1 | AATCCTTGTT  | 2924 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 2 | 1 | 1 | AATCGCAGCC  | 2925 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 0 | 0 | 3 | 3 | AATCGCTAGA  | 2926 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 1 | 1 | AATCTTGAGA  | 2927 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 2 | 0 | 0 | AATGAGGACA  | 2928 | 2.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 2 | 2 | AATGCCATT   | 2929 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 1 | 1 | 0 | 0 | AATGCTAAAA  | 2930 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 2 | 0 | 0 | AATGCTTCAG  | 2931 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 1 | 0 | 0 | AATGGTGGCT  | 2932 | 0.5     | 0.0     | 0.0     |
| 2 | 0 | 0 | 1 | 1 | AATGTGACGT  | 2933 | 0.0     | #DIV/0! | 0.5     |
| 1 | 2 | 2 | 0 | 0 | AATTAAAAGT  | 2934 | 2.0     | 0.0     | 0.0     |
| 0 | 2 | 2 | 1 | 1 | AATTAAACACC | 2935 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 3 | 3 | 0 | 0 | AATTCGAATG  | 2936 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 1 | 1 | 0 | 0 | AATTCGCATA  | 2937 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 2 | 1 | 1 | AATTGACGAA  | 2938 | #DIV/0! | 0.5     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |     |         |
|---|---|---|------------|------|---------|---------|-----|---------|
| 2 | 1 | 0 | AATTGGACGA | 2939 | 0.5     | 0.0     | 0.0 | 0.0     |
| 0 | 1 | 2 | AATTGGCAGA | 2940 | #DIV/0! | 2.0     |     | #DIV/0! |
| 2 | 1 | 0 | AATTTTATTT | 2941 | 0.5     | 0.0     |     | 0.0     |
| 0 | 2 | 1 | ACAAAAGATG | 2942 | #DIV/0! | 0.5     |     | #DIV/0! |
| 1 | 0 | 2 | ACAAGTCTTG | 2943 | 0.0     | #DIV/0! | 2.0 | 2.0     |
| 0 | 1 | 2 | ACAAGTTGAA | 2944 | #DIV/0! | 2.0     |     | #DIV/0! |
| 1 | 2 | 0 | ACAATTATTT | 2945 | 2.0     | 0.0     | 0.0 | 0.0     |
| 1 | 1 | 1 | ACACCAAGCC | 2946 | 1.0     | 1.0     |     | 1.0     |
| 0 | 3 | 0 | ACACCTCCAT | 2947 | #DIV/0! | 0.0     |     | #DIV/0! |
| 2 | 0 | 1 | ACACGAATGG | 2948 | 0.0     | #DIV/0! |     | 0.5     |
| 2 | 1 | 0 | ACACGTACTG | 2949 | 0.5     | 0.0     |     | 0.0     |
| 0 | 1 | 2 | ACACGTGAGG | 2950 | #DIV/0! | 2.0     |     | #DIV/0! |
| 1 | 1 | 1 | ACAGCTTTTT | 2951 | 1.0     | 1.0     |     | 1.0     |
| 1 | 0 | 2 | ACAGGCGTTA | 2952 | 0.0     | #DIV/0! |     | 2.0     |
| 1 | 1 | 1 | ACAGTGCTGG | 2953 | 1.0     | 1.0     |     | 1.0     |
| 0 | 3 | 0 | ACATACGAAA | 2954 | #DIV/0! | 0.0     |     | #DIV/0! |
| 2 | 1 | 0 | ACCAATAACT | 2955 | 0.5     | 0.0     |     | 0.0     |
| 3 | 0 | 0 | ACCCCTGGTG | 2956 | 0.0     | #DIV/0! |     | 0.0     |
| 2 | 1 | 0 | ACCCTATTAA | 2957 | 0.5     | 0.0     |     | 0.0     |
| 2 | 1 | 0 | ACCTATAATG | 2958 | 0.5     | 0.0     |     | 0.0     |
| 0 | 2 | 1 | ACCTCATTAA | 2959 | #DIV/0! | 0.5     |     | #DIV/0! |
| 1 | 1 | 1 | ACCTCCAAAA | 2960 | 1.0     | 1.0     |     | 1.0     |
| 0 | 2 | 1 | ACCTCTGGGT | 2961 | #DIV/0! | 0.5     |     | #DIV/0! |
| 2 | 1 | 0 | ACCTTCCCA  | 2962 | 0.5     | 0.0     |     | 0.0     |
| 2 | 1 | 0 | ACGAAAATCC | 2963 | 0.5     | 0.0     |     | 0.0     |
| 0 | 3 | 0 | ACGAAAATGG | 2964 | #DIV/0! | 0.0     |     | #DIV/0! |
| 2 | 0 | 1 | ACGAGTTAAA | 2965 | 0.0     | #DIV/0! |     | 0.5     |
| 2 | 0 | 1 | ACGATATICA | 2966 | 0.0     | #DIV/0! |     | 0.5     |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 2 | 1 | ACGCTGTTTG | 2967 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 0 | 3 | 0 | ACGAAAAGA  | 2968 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 3 | 0 | ACTACAAGAC | 2969 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | ACTATTTTAA | 2970 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | 0 | ACTCCAGTAA | 2971 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 2 | 0 | ACTCCGATGG | 2972 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 2 | 0 | ACTCCTCCCA | 2973 | 2.0     | 0.0     | 0.0     |
| 2 | 2 | 1 | 0 | ACTCTAACGG | 2974 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | ACTGCTATAG | 2975 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | 0 | ACTGTAGAAA | 2976 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 2 | ACTGTGGTTC | 2977 | 0.0     | #DIV/0! | 2.0     |
| 2 | 0 | 0 | 1 | ACTTCCCAAG | 2978 | 0.0     | #DIV/0! | 0.5     |
| 0 | 0 | 2 | 1 | AGAAAAAANA | 2979 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1 | 1 | AGAAAACAGA | 2980 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | 1 | AGAAACTGTA | 2981 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | 0 | AGAAAGAGGG | 2982 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | AGAAATCTCT | 2983 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | 1 | AGAAGCAAGT | 2984 | 1.0     | 1.0     | 1.0     |
| 3 | 0 | 0 | 0 | AGAATAATGA | 2985 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 2 | AGACCAACTG | 2986 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 1 | 0 | AGACGCGGCT | 2987 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 1 | 0 | AGACTATACA | 2988 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 2 | 0 | AGAGACATCG | 2989 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 1 | 0 | AGAGAGATGT | 2990 | 0.5     | 0.0     | 0.0     |
| 2 | 0 | 0 | 1 | AGAGCGTACA | 2991 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 1 | 0 | AGAGTGCAAA | 2992 | 0.5     | 0.0     | 0.0     |
| 0 | 0 | 2 | 1 | AGAGTGTTT  | 2993 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 0 | 1 | 2 | AGATCAGTAA | 2994 | #DIV/0! | 2.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 2 | AGATGGTTCC | 2995 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 1 | 0 | AGCAGAACCA | 2996 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | AGCCGATTAT | 2997 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | AGCGTAATAA | 2998 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | AGCTTGTTCC | 2999 | 0.5     | 0.0     | 0.0     |
| 0 | 0 | 3 | AGGACACCAA | 3000 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 2 | 0 | AGGATGATGA | 3001 | 2.0     | 0.0     | 0.0     |
| 0 | 3 | 0 | AGGATTCTGA | 3002 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 1 | AGGCATCTTG | 3003 | #DIV/0! | 0.5     | #DIV/0! |
| 3 | 0 | 0 | AGGTAGATCT | 3004 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 2 | AGTAATTCTA | 3005 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 2 | 0 | AGTCAAAATG | 3006 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | AGTCAACCTT | 3007 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2 | AGTCCAGTTG | 3008 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | AGTGAGTATA | 3009 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | AGTTGCTATG | 3010 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0 | AGTTTGTTTA | 3011 | 2.0     | 0.0     | 0.0     |
| 0 | 2 | 1 | AGTTTACAG  | 3012 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | ATAAAGAACA | 3013 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | ATAACGAAAA | 3014 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | ATAAGACAGT | 3015 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | ATAAGGATGG | 3016 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | ATAAGGCGAT | 3017 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | ATAATAAAAA | 3018 | 0.5     | 0.0     | 0.0     |
| 2 | 0 | 1 | ATAATATTGG | 3019 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | ATAATGGAAC | 3020 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | ATAATTTTAA | 3021 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | ATACCAGCAG | 3022 | #DIV/0! | 0.5     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |     |         |
|---|---|---|---|------------|------|---------|---------|-----|---------|
| 1 | 1 | 1 | 1 | ATACCAGCTT | 3023 | 1.0     | 1.0     | 1.0 | 1.0     |
| 0 | 2 | 1 | 1 | ATACTTTTT  | 3024 | #DIV/0! | 0.5     |     | #DIV/0! |
| 0 | 2 | 1 | 1 | ATAGCGTTGA | 3025 | #DIV/0! | 0.5     |     | #DIV/0! |
| 1 | 0 | 2 | 2 | ATAGCTGCCC | 3026 | 0.0     | #DIV/0! |     | 2.0     |
| 2 | 1 | 0 | 0 | ATAGTTCGGA | 3027 | 0.5     | 0.0     |     | 0.0     |
| 0 | 3 | 0 | 0 | ATATTAAAA  | 3028 | #DIV/0! | 0.0     |     | #DIV/0! |
| 1 | 0 | 2 | 2 | ATCATAAAA  | 3029 | 0.0     | #DIV/0! |     | 2.0     |
| 0 | 2 | 1 | 1 | ATCCAATCTC | 3030 | #DIV/0! | 0.5     |     | #DIV/0! |
| 0 | 2 | 1 | 1 | ATCCATCCAC | 3031 | #DIV/0! | 0.5     |     | #DIV/0! |
| 1 | 0 | 2 | 2 | ATCGACCGCG | 3032 | 0.0     | #DIV/0! |     | 2.0     |
| 1 | 2 | 0 | 0 | ATCGCCGCTT | 3033 | 2.0     | 0.0     |     | 0.0     |
| 0 | 1 | 2 | 2 | ATCGCGCTCA | 3034 | #DIV/0! | 2.0     |     | #DIV/0! |
| 2 | 1 | 0 | 0 | ATCTAGAACT | 3035 | 0.5     | 0.0     |     | 0.0     |
| 2 | 1 | 0 | 0 | ATCTAGAATC | 3036 | 0.5     | 0.0     |     | 0.0     |
| 0 | 3 | 0 | 0 | ATCTCATCAT | 3037 | #DIV/0! | 0.0     |     | #DIV/0! |
| 2 | 0 | 1 | 1 | ATCTGAAAAA | 3038 | 0.0     | #DIV/0! |     | 0.5     |
| 0 | 3 | 0 | 0 | ATCTTGGATA | 3039 | #DIV/0! | 0.0     |     | #DIV/0! |
| 1 | 1 | 1 | 1 | ATCTTGTAC  | 3040 | 1.0     | 1.0     |     | 1.0     |
| 1 | 2 | 0 | 0 | ATGAAAAAAA | 3041 | 2.0     | 0.0     |     | 0.0     |
| 0 | 1 | 2 | 2 | ATGAAGTTCC | 3042 | #DIV/0! | 2.0     |     | #DIV/0! |
| 1 | 2 | 0 | 0 | ATGAATTATA | 3043 | 2.0     | 0.0     |     | 0.0     |
| 0 | 1 | 2 | 2 | ATGACAGACA | 3044 | #DIV/0! | 2.0     |     | #DIV/0! |
| 3 | 0 | 0 | 0 | ATGACCATAA | 3045 | 0.0     | #DIV/0! |     | 0.0     |
| 0 | 1 | 2 | 2 | ATGACGGCAG | 3046 | #DIV/0! | 2.0     |     | #DIV/0! |
| 0 | 1 | 2 | 2 | ATGAGGGCAA | 3047 | #DIV/0! | 2.0     |     | #DIV/0! |
| 1 | 0 | 2 | 2 | ATGCTAGATG | 3048 | 0.0     | #DIV/0! |     | 2.0     |
| 0 | 2 | 1 | 1 | ATGGAAGCCC | 3049 | #DIV/0! | 0.5     |     | #DIV/0! |
| 0 | 1 | 2 | 2 | ATGGAGTTGT | 3050 | #DIV/0! | 2.0     |     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 3 | 0 | 0 | ATGCCATTC  | 3051 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | ATGGCCGTAG | 3052 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | 2 | ATGGGCTCCA | 3053 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 0 | 2 | 2 | ATGTAGGCCA | 3054 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 0 | 0 | ATGTATAGTC | 3055 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | ATGTTGGGA  | 3056 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 1 | 1 | ATTAAAAGTT | 3057 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 0 | 1 | 1 | ATTAAACTAG | 3058 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | 0 | ATTAAAGTTG | 3059 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | ATTATGGGAG | 3060 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | 2 | ATCCCGGAA  | 3061 | 0.0     | #DIV/0! | 2.0     |
| 0 | 1 | 2 | 2 | ATCCTGACG  | 3062 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 1 | 0 | 0 | ATCGTTGGA  | 3063 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | ATCTTTGCC  | 3064 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | 1 | ATCTTTGGA  | 3065 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | 2 | ATCTTTTCG  | 3066 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 2 | 0 | 0 | ATTGAGGTGC | 3067 | 2.0     | 0.0     | 0.0     |
| 3 | 0 | 0 | 0 | ATTGCTAAGG | 3068 | 0.0     | #DIV/0! | 0.0     |
| 0 | 3 | 0 | 0 | ATTGGGTTCG | 3069 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 2 | 2 | ATTGGTGGTC | 3070 | 0.0     | #DIV/0! | 2.0     |
| 0 | 3 | 0 | 0 | ATTGTATTTA | 3071 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 2 | 0 | 0 | ATTATTCAT  | 3072 | 2.0     | 0.0     | 0.0     |
| 1 | 0 | 2 | 2 | ATTCACCCCT | 3073 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | 0 | ATTCAGAAA  | 3074 | 0.5     | 0.0     | 0.0     |
| 0 | 1 | 2 | 2 | ATTCAGTTT  | 3075 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 3 | 0 | 0 | ATTCACATAT | 3076 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 3 | 3 | ATTCCTCCC  | 3077 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 2 | 2 | ATTGCAGAA  | 3078 | 0.0     | #DIV/0! | 2.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 1 | 1 | 1 | ATTGGCCAT  | 3079 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | 1 | ATTTACATA  | 3080 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 2 | 0 | 0 | ATTTATTG   | 3081 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | ATTTTAAA   | 3082 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | 0 | ATTTTGTG   | 3083 | 2.0     | 0.0     | 0.0     |
| 0 | 3 | 0 | 0 | ATTTTAAA   | 3084 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | CAAAAATCG  | 3085 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | 3 | CAAAACCAA  | 3086 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 1 | 1 | CAAAACCCCA | 3087 | 0.0     | #DIV/0! | 0.5     |
| 1 | 0 | 2 | 2 | CAAAATTAGA | 3088 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 0 | 0 | CAACAAACG  | 3089 | 2.0     | 0.0     | 0.0     |
| 0 | 0 | 3 | 3 | CAACCCCAAC | 3090 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 1 | 1 | CAAGAAACCC | 3091 | 0.0     | #DIV/0! | 0.5     |
| 2 | 0 | 1 | 1 | CAACAAAGCA | 3092 | 0.0     | #DIV/0! | 0.5     |
| 2 | 0 | 1 | 1 | CAACACCCAA | 3093 | 0.0     | #DIV/0! | 0.5     |
| 1 | 2 | 0 | 0 | CAACCCCATC | 3094 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | CAAGAATGCA | 3095 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | 2 | CAAGACACGT | 3096 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | 0 | CAAGATTGAT | 3097 | 0.5     | 0.0     | 0.0     |
| 0 | 1 | 2 | 2 | CAAGGAGCCT | 3098 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 3 | 0 | 0 | CAATTCACCT | 3099 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 3 | 3 | CAATTCCTAC | 3100 | #DIV/0! | #DIV/0! | #DIV/0! |
| 3 | 0 | 0 | 0 | CAATTTTCAG | 3101 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 2 | 2 | CACATTGTT  | 3102 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 0 | 1 | 1 | CACCACTCCT | 3103 | 0.0     | #DIV/0! | 0.5     |
| 3 | 0 | 0 | 0 | CACCTGTTTG | 3104 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 1 | 1 | CACGTACACA | 3105 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 0 | 1 | 1 | CACGTTTCTA | 3106 | 0.0     | #DIV/0! | 0.5     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 2 | CACTGACCT   | 3107 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 1 | 2 | CAGAAATAGC  | 3108 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | CAGAAGTTTA  | 3109 | 1.0     | 1.0     | 1.0     |
| 2 | 0 | 1 | CAGAAITTTGA | 3110 | 0.0     | #DIV/0! | 0.5     |
| 1 | 0 | 2 | CAGATGAGTG  | 3111 | 0.0     | #DIV/0! | 2.0     |
| 0 | 1 | 2 | CAGCCCTGAG  | 3112 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 0 | 1 | CAGCTCAACA  | 3113 | 0.0     | #DIV/0! | 0.5     |
| 3 | 0 | 0 | CAGGAATGAA  | 3114 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 1 | CAGGTACCGC  | 3115 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | CAGGTTTTGT  | 3116 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | CAGTACTTTC  | 3117 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | CAGTCCTTGC  | 3118 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | CAGTGGCTCT  | 3119 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | CAGTTTCTAT  | 3120 | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0 | CATACATACA  | 3121 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 3 | 0 | CATACATATT  | 3122 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 1 | CATACGTTAT  | 3123 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 0 | 1 | CATACITCAA  | 3124 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | CATATTCTG   | 3125 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | CATTACCCCG  | 3126 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | CATTCATGG   | 3127 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | CATTCACGAT  | 3128 | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0 | CATTCGCCTAT | 3129 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 1 | CATTGATCCT  | 3130 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | CATTGGTACT  | 3131 | 0.0     | #DIV/0! | 2.0     |
| 3 | 0 | 0 | CATTTTAAA   | 3132 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 1 | CATTTTTC    | 3133 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | CCAAGATCAA  | 3134 | 0.5     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 3 | CCAAGGGTAC | 3135 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 1 | CCAATATTTA | 3136 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | CCACAGTAGT | 3137 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | CCACGGTTGA | 3138 | 2.0     | 0.0     | 0.0     |
| 0 | 2 | 1 | CCACTGTCAG | 3139 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 2 | 0 | CCACTTTTGG | 3140 | 2.0     | 0.0     | 0.0     |
| 1 | 0 | 2 | CCAGATATTT | 3141 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | CCAGTAATCC | 3142 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | CCATCAACAG | 3143 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 1 | 0 | CCATCCTTAC | 3144 | 0.5     | 0.0     | 0.0     |
| 0 | 1 | 2 | CCCAATATTT | 3145 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | CCCAATTCT  | 3146 | 1.0     | 1.0     | 1.0     |
| 2 | 0 | 1 | CCCAGCTGCC | 3147 | 0.0     | #DIV/0! | 0.5     |
| 0 | 2 | 1 | CCCATATCT  | 3148 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | CCCGTATTAT | 3149 | 0.0     | #DIV/0! | 2.0     |
| 0 | 1 | 2 | CCCGTCACAA | 3150 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | CCGAAACAGG | 3151 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | CCGACAGTAA | 3152 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | CCGATGCTA  | 3153 | #DIV/0! | 2.0     | #DIV/0! |
| 3 | 0 | 0 | CCTCCAACGG | 3154 | 0.0     | #DIV/0! | 0.0     |
| 1 | 2 | 0 | CCTCTACTGG | 3155 | 2.0     | 0.0     | 0.0     |
| 0 | 3 | 0 | CCTGTTTTTG | 3156 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 2 | 0 | CCTTAAGGGT | 3157 | 2.0     | 0.0     | 0.0     |
| 1 | 0 | 2 | CCTTAGAAT  | 3158 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | CCTTTCAAAT | 3159 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | CCTTTCTGAA | 3160 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | CGAAGTCAAA | 3161 | 2.0     | 0.0     | 0.0     |
| 2 | 0 | 1 | CGACTGCTAA | 3162 | 0.0     | #DIV/0! | 0.5     |

Table 5, cont.

|   |   |   |   |   |            |      |         |         |         |         |
|---|---|---|---|---|------------|------|---------|---------|---------|---------|
| 1 | 1 | 1 | 1 | 1 | CGACTGTAAA | 3163 | 1.0     | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0 | 0 | 0 | CGAGTCAATT | 3164 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | 1 | CGATATCCAC | 3165 | 1.0     | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | 2 | 2 | CGATCAAAGC | 3166 | #DIV/0! | 2.0     | 2.0     | #DIV/0! |
| 2 | 1 | 0 | 0 | 0 | CGCAAAGCGA | 3167 | 0.5     | 0.0     | 0.0     | 0.0     |
| 0 | 3 | 0 | 0 | 0 | CGCAAGGTCC | 3168 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 2 | 1 | 1 | 1 | CGCAGTTATA | 3169 | #DIV/0! | 0.5     | 0.5     | #DIV/0! |
| 1 | 2 | 0 | 0 | 0 | CGCATTATTA | 3170 | 2.0     | 0.0     | 0.0     | 0.0     |
| 1 | 2 | 0 | 0 | 0 | CGCCTGCTTA | 3171 | 2.0     | 0.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | 1 | CGCCTGTTTA | 3172 | 1.0     | 1.0     | 1.0     | 1.0     |
| 3 | 0 | 0 | 0 | 0 | CGCTTCCAAT | 3173 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 3 | 0 | 0 | 0 | CGGAGTTCCA | 3174 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | 1 | CGGCAGTGAA | 3175 | 1.0     | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0 | 0 | 0 | CGGCCAAGAC | 3176 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | 1 | CGGCCATTAT | 3177 | 1.0     | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | 2 | 2 | CGGCCCTTTT | 3178 | #DIV/0! | 2.0     | 2.0     | #DIV/0! |
| 1 | 0 | 2 | 2 | 2 | CGGTAAAAC  | 3179 | 0.0     | #DIV/0! | 2.0     | 2.0     |
| 3 | 0 | 0 | 0 | 0 | CGGTAATCCC | 3180 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 1 | 2 | 0 | 0 | 0 | CGTACACGCG | 3181 | 2.0     | 0.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | 1 | CGTATTTAAG | 3182 | 1.0     | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | 0 | 0 | CGTCICCGGA | 3183 | 2.0     | 0.0     | 0.0     | 0.0     |
| 2 | 0 | 1 | 1 | 1 | CGTTGCGAAA | 3184 | 0.0     | #DIV/0! | 0.5     | 0.5     |
| 1 | 2 | 0 | 0 | 0 | CTAAAAAAA  | 3185 | 2.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 2 | 2 | 2 | CTAACTTCCG | 3186 | 0.0     | #DIV/0! | 2.0     | 2.0     |
| 2 | 0 | 0 | 1 | 1 | CTAAGAGCTG | 3187 | 0.0     | #DIV/0! | 0.5     | 0.5     |
| 0 | 1 | 2 | 2 | 2 | CTACAGAAGA | 3188 | #DIV/0! | 2.0     | #DIV/0! | #DIV/0! |
| 1 | 2 | 0 | 0 | 0 | CTACCTCTGA | 3189 | 2.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 2 | 2 | 2 | CTACTGCCAA | 3190 | 0.0     | #DIV/0! | 2.0     | 2.0     |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 1 | 1 | 1 | CTACTTCGCG | 3191 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | 2 | CTAGTCGGCC | 3192 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 3 | 0 | 0 | CTAGTGTGT  | 3193 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 2 | 0 | 0 | CTATGTCGTA | 3194 | 2.0     | 0.0     | 0.0     |
| 2 | 0 | 1 | 1 | CTCAAGAGGG | 3195 | 0.0     | #DIV/0! | 0.5     |
| 0 | 2 | 1 | 1 | CTCTACAGTA | 3196 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 0 | 1 | 1 | CTCTACTGGT | 3197 | 0.0     | #DIV/0! | 0.5     |
| 1 | 2 | 0 | 0 | CTCTAGATAA | 3198 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | CTCTATTCAA | 3199 | 0.5     | 0.0     | 0.0     |
| 0 | 3 | 0 | 0 | CTCTCCGGCG | 3200 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 1 | 1 | CTCTTCATCT | 3201 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1 | 1 | CTGATTGCCA | 3202 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | 3 | CTGCAGTGT  | 3203 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 2 | 2 | CTGCTCAAAA | 3204 | 0.0     | #DIV/0! | 2.0     |
| 1 | 0 | 2 | 2 | CTGGAACCTA | 3205 | 0.0     | #DIV/0! | 2.0     |
| 0 | 3 | 0 | 0 | CTGGTAGAAA | 3206 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 2 | 2 | CTGTGCGGGA | 3207 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 2 | 0 | 0 | CTGTTATTTT | 3208 | 2.0     | 0.0     | 0.0     |
| 0 | 3 | 0 | 0 | CTGTTGTGT  | 3209 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 1 | 0 | 0 | CTTACACTAT | 3210 | 0.5     | 0.0     | 0.0     |
| 0 | 3 | 0 | 0 | CTTACATATA | 3211 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 1 | 1 | CTTACCCGAG | 3212 | 0.0     | #DIV/0! | 0.5     |
| 1 | 0 | 2 | 2 | CTTACGATTA | 3213 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 0 | 0 | CTTCAAGGTT | 3214 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | CTTCAGAAAA | 3215 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | CTTCTGAAGA | 3216 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2 | 2 | CTTCTCTGCG | 3217 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | 1 | CTTGATGCTT | 3218 | 1.0     | 1.0     | 1.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 2 | 0 | CTGTAGGAA  | 3219 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | CTTTTAGTT  | 3220 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | CTTTTTTCC  | 3221 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | GAAACAACGA | 3222 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | GAACTCTGCT | 3223 | 0.0     | #DIV/0! | 2.0     |
| 0 | 3 | 0 | GAACTTGGG  | 3224 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 2 | 0 | GAACTTTAT  | 3225 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | GAAAGCTAGA | 3226 | 1.0     | 1.0     | 1.0     |
| 2 | 0 | 1 | GAAAGCTTTT | 3227 | 0.0     | #DIV/0! | 0.5     |
| 0 | 2 | 1 | GAAAGGAAAA | 3228 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1 | GAAAGGTAT  | 3229 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | GAAATAAAT  | 3230 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2 | GAAATATCAC | 3231 | 0.0     | #DIV/0! | 2.0     |
| 0 | 0 | 3 | GAAATCCCAC | 3232 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 1 | GAAATGTCTG | 3233 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | GAACGGCGAA | 3234 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | GAACGTGCGG | 3235 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | GAACATTATG | 3236 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | GAAGAAATGG | 3237 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | GAAGAGGCGG | 3238 | 0.0     | #DIV/0! | 2.0     |
| 2 | 0 | 1 | GAAGATTAC  | 3239 | 0.0     | #DIV/0! | 0.5     |
| 0 | 2 | 1 | GAAGGAAGAA | 3240 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 1 | 0 | GAATATGAAA | 3241 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | GAATCGTGGG | 3242 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2 | GAATGTGAAA | 3243 | 0.0     | #DIV/0! | 2.0     |
| 3 | 0 | 0 | GAATTAAGA  | 3244 | 0.0     | #DIV/0! | 0.0     |
| 3 | 0 | 0 | GAATTGTACT | 3245 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 1 | GACAAGTGCG | 3246 | 1.0     | 1.0     | 1.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 2 | 1 | 0 | GACAGATACG  | 3247 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 1 | GACAGCGCTT  | 3248 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | GACCACCTCT  | 3249 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | GACCGGGA    | 3250 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | GACCTTGATT  | 3251 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | GACTCACTTG  | 3252 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2 | GA CTGACTTA | 3253 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | GACTTGTTTT  | 3254 | 0.5     | 0.0     | 0.0     |
| 3 | 0 | 0 | GAGAAGAAAA  | 3255 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 1 | GAGACCAATT  | 3256 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | GAGAGATTTT  | 3257 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 2 | GAGAGTGTG   | 3258 | 0.0     | #DIV/0! | 2.0     |
| 0 | 0 | 3 | GAGATACTTT  | 3259 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 2 | GAGATCATTT  | 3260 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | GAGCCCACTT  | 3261 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | GAGCTCTGGC  | 3262 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 1 | GAGCTTGGGA  | 3263 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | GAGGCCCCAG  | 3264 | 0.0     | #DIV/0! | 2.0     |
| 1 | 0 | 2 | GAGGGAATTT  | 3265 | 0.0     | #DIV/0! | 2.0     |
| 0 | 3 | 0 | GAGGTCTAAG  | 3266 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 2 | 0 | GAGGTGTTTT  | 3267 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | GAGTGATGAA  | 3268 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | GAGTGGTTCA  | 3269 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 2 | 1 | GAGTTACGTA  | 3270 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 0 | 3 | GATAAACTGC  | 3271 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 2 | GATAACCTTC  | 3272 | 0.0     | #DIV/0! | 2.0     |
| 2 | 0 | 1 | GATATGTACC  | 3273 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | GATATTACGG  | 3274 | 0.5     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 2 | GATCAGACGC  | 3275 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 2 | 1 | GATCAGTATA  | 3276 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 0 | 3 | GATCATCCGG  | 3277 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 2 | GATCCATCGA  | 3278 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | GATGAAAATA  | 3279 | 1.0     | 1.0     | 1.0     |
| 3 | 0 | 0 | GATGAAGGTG  | 3280 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 2 | GATGAATTCT  | 3281 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | GATGATGGGT  | 3282 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | GATTCACCAG  | 3283 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | GATTCAGAAA  | 3284 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | GATTTATTGG  | 3285 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 1 | 2 | GCAAATCCAA  | 3286 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | GCAACACCCAC | 3287 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | GCAACTTATC  | 3288 | 0.0     | #DIV/0! | 12.0    |
| 0 | 3 | 0 | GCACACCGTG  | 3289 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | GCAGAAGAAC  | 3290 | 1.0     | 1.0     | 1.0     |
| 2 | 0 | 1 | GCAGATGCTG  | 3291 | 0.0     | #DIV/0! | 0.5     |
| 0 | 1 | 2 | GCAGGTTGTA  | 3292 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | GCATAAATCG  | 3293 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | GCATAGAGAA  | 3294 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | GCATAGATAT  | 3295 | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0 | GCAITTCAAA  | 3296 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 2 | GCCACCCGTC  | 3297 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 0 | GCCATAAGTG  | 3298 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | GCCCAATACC  | 3299 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | GCCCATCTAC  | 3300 | 2.0     | 0.0     | 0.0     |
| 2 | 0 | 1 | GCCCCGTAACG | 3301 | 0.0     | #DIV/0! | 0.5     |
| 0 | 1 | 2 | GCCCTATTAA  | 3302 | #DIV/0! | 2.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 3 | GCCGTGCAGC  | 3303 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 1 | GCCGTTCGAT  | 3304 | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0 | 0 | GCCTTGAATA  | 3305 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 0 | 0 | 0 | GCCTTGGTGA  | 3306 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 1 | GCGAAAAAAA  | 3307 | 0.0     | #DIV/0! | 0.5     |
| 0 | 0 | 0 | 3 | GCGAGTTTAG  | 3308 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 2 | GCGCAGGGGC  | 3309 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 1 | 1 | 2 | GCGTTTGAGG  | 3310 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 1 | 1 | 2 | GCTAAAAGAT  | 3311 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | 1 | GCTATGAGTT  | 3312 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | 1 | GCTCATAGAA  | 3313 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | 1 | GCTCCAATAG  | 3314 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | 1 | GCTGCTAAGA  | 3315 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 0 | 2 | GCTGCTCAAG  | 3316 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | 1 | GCTGTTAACG  | 3317 | 1.0     | 1.0     | 1.0     |
| 3 | 0 | 0 | 0 | GCTTCAACGG  | 3318 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 1 | GCTTGTTGCC  | 3319 | 0.0     | #DIV/0! | 0.5     |
| 2 | 0 | 0 | 1 | GCTTTTGGT   | 3320 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | 1 | GGAACAACAAG | 3321 | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0 | 0 | GGAACATCT   | 3322 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 2 | 2 | GGAATCAAT   | 3323 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 2 | 0 | 0 | GGAACATAAC  | 3324 | 2.0     | 0.0     | 0.0     |
| 0 | 0 | 0 | 3 | GGAATACGAT  | 3325 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 2 | GGAATAGGAC  | 3326 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 0 | 0 | 1 | GGAATCTTGA  | 3327 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | 0 | GGAATTATGA  | 3328 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 0 | 2 | GGACACTTCT  | 3329 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 0 | 0 | GGACGGTCTC  | 3330 | 2.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 2 | 0 | 1 | GGAGAAGTTC  | 3331 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | GGAGAGGTCT  | 3332 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 1 | GGATGCCAAC  | 3333 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1 | GGCAAGAAGA  | 3334 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | GGCAAGGTTG  | 3335 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 1 | 2 | GGCAATGGCA  | 3336 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 1 | 0 | GGCATTGTCT  | 3337 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | GGCCATACTG  | 3338 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | GGCCCAATTAC | 3339 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | GGCGTTAACG  | 3340 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | GGCGTTGTGT  | 3341 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | GGCTCTGGTT  | 3342 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 1 | 2 | GGCTGCGTCG  | 3343 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | GGCTTCAAGA  | 3344 | 1.0     | 1.0     | 1.0     |
| 2 | 0 | 1 | GGCTTTGTAC  | 3345 | 0.0     | #DIV/0! | 0.5     |
| 2 | 0 | 1 | GGGATTTTGG  | 3346 | 0.0     | #DIV/0! | 0.5     |
| 0 | 2 | 1 | GGGCAATTTT  | 3347 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1 | GGGCAGCTCG  | 3348 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | GGGTCCAGAT  | 3349 | 0.0     | #DIV/0! | 2.0     |
| 0 | 0 | 3 | GGTGAAAAC   | 3350 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 2 | GGGTGAAAAG  | 3351 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 0 | 2 | GGGTACAGG   | 3352 | 0.0     | #DIV/0! | 2.0     |
| 0 | 1 | 2 | GGGTTCGGTT  | 3353 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 2 | 0 | GGTAAAACG   | 3354 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | GGTAGGTAAG  | 3355 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | GGTCCAGCTC  | 3356 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 1 | 2 | GGTCTCAGGT  | 3357 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 1 | 0 | GGTGAAAACC  | 3358 | 0.5     | 0.0     | 0.0     |

Table 5, cont.

|   |   |    |            |      |         |         |         |
|---|---|----|------------|------|---------|---------|---------|
| 2 | 1 | 0  | GGTAAAGCG  | 3359 | 0.5     | 0.0     | 0.0     |
| 0 | 0 | 3  | GGTGACCAA  | 3360 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 2  | GGTGATAAT  | 3361 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 0 | 1  | GGTGCTGTGT | 3362 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1  | GGTGAAACG  | 3363 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2  | GGTGGCCAGC | 3364 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1  | GGTGGTCCAA | 3365 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2  | GGTGTAACG  | 3366 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 1 | 0  | GGTGTTAACT | 3367 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1  | GGTGTTAATG | 3368 | 1.0     | 1.0     | 1.0     |
| 0 | 3 | 0  | GGTGTTTTA  | 3369 | #DIV/0! | 0.0     | #DIV/0! |
| 3 | 0 | 0  | GGTACGGTT  | 3370 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 2  | GGTCCGGTA  | 3371 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 0 | 3  | GGTCCGGTT  | 3372 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1  | GGTTGTGTTA | 3373 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3  | GGTTCCGGT  | 3374 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 1 | 0  | GGTTCCCTGA | 3375 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1  | GGTTCCCTTC | 3376 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0  | GGTTCCGGTC | 3377 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0  | GGTTTAAAG  | 3378 | 2.0     | 0.0     | 0.0     |
| 0 | 1 | 2  | GGTTTGGCT  | 3379 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 0 | 1  | GTAAGAAT   | 3380 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0  | GTAACGAATC | 3381 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | .1 | GTAAGATTGA | 3382 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 1 | 2  | GTACAGCTAT | 3383 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1  | GTACCTACCC | 3384 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1  | GTACTCCAGC | 3385 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1  | GTAGCTACAG | 3386 | 1.0     | 1.0     | 1.0     |

Table 5, cont.

|   |   |    |    |             |      |         |         |         |
|---|---|----|----|-------------|------|---------|---------|---------|
| 0 | 3 | 0  | 0  | GTAGTATTAG  | 3387 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 2 | 0  | 0  | GTATAGCAAA  | 3388 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0  | 0  | GTATCGAAAA  | 3389 | 2.0     | 0.0     | 0.0     |
| 0 | 3 | 0  | 0  | GTATTTTCA   | 3390 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 2  | 2  | GTCCAGATTCT | 3391 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 2 | 1  | 1  | GTCCATAAGC  | 3392 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 2 | 1  | 1  | GTCCGCCGCTC | 3393 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1  | 1  | GTCCGGACTGC | 3394 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1  | 1  | GTCTCGCTTG  | 3395 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0  | 0  | GTCTTTCITT  | 3396 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0  | 0  | GTCTTTTCAC  | 3397 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2  | 2  | GTGAAAAAAA  | 3398 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0  | 0  | GTGAAAGCGA  | 3399 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1  | 1  | GTGAGCAGTC  | 3400 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1  | 1  | GTGCGTGTTT  | 3401 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1  | 1  | GTGCTTCITT  | 3402 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 3 | 0  | 0  | GTGGAGATTT  | 3403 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 1 | 0  | 0  | GTGGCTACTC  | 3404 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0  | 0  | GTGGCTACTT  | 3405 | 2.0     | 0.0     | 0.0     |
| 0 | 2 | 1  | 1  | GTGGTATTGC  | 3406 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 0 | 1  | 1  | GTGGTTTTTC  | 3407 | 0.0     | #DIV/0! | 0.5     |
| 2 | 0 | 1  | 1  | GTGTCAGITT  | 3408 | 0.0     | #DIV/0! | 0.5     |
| 0 | 2 | 1  | 1  | GTGTGGTCCT  | 3409 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 2 | 0  | 0  | GTTAAAAAAA  | 3410 | 2.0     | 0.0     | 0.0     |
| 0 | 1 | 2  | 2  | GTTAAATTTT  | 3411 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 1 | 2  | 2  | GTTATATGCT  | 3412 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 2 | 0  | 0  | GTTATATTGA  | 3413 | 2.0     | 0.0     | 0.0     |
| 2 | 0 | -1 | -1 | GTTCAAGAGG  | 3414 | 0.0     | #DIV/0! | 0.5     |





Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 2 | 1 | TACCACCACG  | 3443 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | TACCACCCCT  | 3444 | 0.0     | #DIV/0! | 2.0     |
| 2 | 0 | 1 | TACCAGAAA   | 3445 | 0.0     | #DIV/0! | 0.5     |
| 0 | 1 | 2 | TACCCTCCTT  | 3446 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 0 | 2 | TACCGCTCCT  | 3447 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | TACCTCTCAG  | 3448 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | TACTAAGAAA  | 3449 | 0.0     | #DIV/0! | 2.0     |
| 0 | 0 | 3 | TACTTTAAAT  | 3450 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 2 | TAGAACAGA   | 3451 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 0 | 3 | TAGAGAATGT  | 3452 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 1 | TAGCAGAAAT  | 3453 | 0.0     | #DIV/0! | 0.5     |
| 1 | 0 | 2 | TAGCCAATGC  | 3454 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | TAGCCACCCC  | 3455 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | TAGCTATCAG  | 3456 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | TAGGGAACATA | 3457 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | TAGGGCCCTC  | 3458 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | TAGTTTTTTT  | 3459 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | TAGTCAAGCC  | 3460 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 1 | 0 | TAGTTAGTTT  | 3461 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | TAGTTTATTT  | 3462 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0 | TATAAAGTAA  | 3463 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | TATAAATGTA  | 3464 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | TATAATGCTA  | 3465 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | TATATAAATA  | 3466 | 0.5     | 0.0     | 0.0     |
| 0 | 1 | 2 | TATATAGAGT  | 3467 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 3 | 0 | TATATATAAT  | 3468 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | TATATCGTAT  | 3469 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | TATATGTGTG  | 3470 | #DIV/0! | 0.5     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 2 | 1 | 0 | TATATTAAGG | 3471 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | TATATTGGAC | 3472 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | TATATTTTAA | 3473 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | TATCTAGAGA | 3474 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | TATCTTTTCA | 3475 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | TATGATGTGA | 3476 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | TATTACTGAC | 3477 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | TATTCTGTAT | 3478 | 2.0     | 0.0     | 0.0     |
| 2 | 0 | 1 | TATTGTTTTA | 3479 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | TATTATAAT  | 3480 | 0.5     | 0.0     | 0.0     |
| 2 | 0 | 1 | TATTTATTTA | 3481 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | TATTGTATGA | 3482 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 1 | TATTGGATG  | 3483 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 3 | 0 | TATTTTATAT | 3484 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 1 | TATTTTCAGG | 3485 | #DIV/0! | 0.5     | #DIV/0! |
| 3 | 0 | 0 | TATTTTATTT | 3486 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 1 | TCAAAGAAG  | 3487 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1 | TCAAACAGTT | 3488 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | TCAAAGGATC | 3489 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | TCAAATAGAT | 3490 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | TCAAATTTTT | 3491 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 1 | 1 | TCACTATTAA | 3492 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | TCATAGCTTA | 3493 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0 | TCATATTATA | 3494 | 2.0     | 0.0     | 0.0     |
| 0 | 1 | 2 | TCATCACCAG | 3495 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 0 | 1 | TCCAACCTTG | 3496 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | TCCATTATGC | 3497 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | TCCATTTATC | 3498 | 2.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 3 | 0 | TCCCCGTAA   | 3499 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 3 | 0 | TCCCCGTACC  | 3500 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | TCCCCTATTA  | 3501 | 1.0     | 1.0     | 1.0     |
| 3 | 0 | 0 | TCCCTACTAA  | 3502 | 0.0     | #DIV/0! | 0.0     |
| 1 | 2 | 0 | TCCCTACTGG  | 3503 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | TCCCTATTAT  | 3504 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 1 | TCCCTTTAAG  | 3505 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 1 | 0 | TCCTCAGCTA  | 3506 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | TCCTCCGGAG  | 3507 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | TCGCCACTAA  | 3508 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | TCGCCGAGGA  | 3509 | 1.0     | 1.0     | 1.0     |
| 1 | 1 | 1 | TCGCCCTCAGG | 3510 | 1.0     | 1.0     | 1.0     |
| 0 | 1 | 2 | TCGCCCTGAAG | 3511 | #DIV/0! | 2.0     | #DIV/0! |
| 0 | 3 | 0 | TCGGTGTATT  | 3512 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 3 | 0 | TCGTCATCAG  | 3513 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 3 | TCGTCTGGTT  | 3514 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 1 | TCGTTGAAGT  | 3515 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 0 | 1 | TCTAGTCGAA  | 3516 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | TCTATAGCAA  | 3517 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | TCTCTACCGG  | 3518 | 0.5     | 0.0     | 0.0     |
| 2 | 0 | 1 | TCTCTACTGT  | 3519 | 0.0     | #DIV/0! | 0.5     |
| 1 | 0 | 2 | TCTGCAGAGC  | 3520 | 0.0     | #DIV/0! | 2.0     |
| 2 | 1 | 0 | TCTTCGTTAT  | 3521 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2 | TGAATGAAAC  | 3522 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | TGACAAGTAT  | 3523 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | TGAGAGAGAT  | 3524 | 2.0     | 0.0     | 0.0     |
| 0 | 0 | 3 | TGAGCACTCC  | 3525 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 1 | TGAGGCAGTT  | 3526 | 0.0     | #DIV/0! | 0.5     |

Table 5, cont.

|   |   |   |   |      |         |     |         |         |
|---|---|---|---|------|---------|-----|---------|---------|
| 2 | 1 | 0 | 0 | 3527 | 0.5     | 0.0 | 0.0     | 0.0     |
| 0 | 2 | 1 |   | 3528 |         |     | 0.5     | #DIV/0! |
| 0 | 0 | 3 |   | 3529 | #DIV/0! |     |         | #DIV/0! |
| 2 | 0 | 1 |   | 3530 | 0.0     |     | #DIV/0! | 0.5     |
| 1 | 2 | 0 |   | 3531 | 2.0     |     | 0.0     | 0.0     |
| 0 | 2 | 1 |   | 3532 | #DIV/0! |     | 0.5     | #DIV/0! |
| 1 | 0 | 2 |   | 3533 | 0.0     |     | #DIV/0! | 2.0     |
| 1 | 2 | 0 |   | 3534 | 2.0     |     | 0.0     | 0.0     |
| 1 | 2 | 0 |   | 3535 | 2.0     |     | 0.0     | 0.0     |
| 1 | 2 | 0 |   | 3536 | 2.0     |     | 0.0     | 0.0     |
| 1 | 0 | 2 |   | 3537 | 0.0     |     | #DIV/0! | 2.0     |
| 2 | 0 | 1 |   | 3538 | 0.0     |     | #DIV/0! | 0.5     |
| 1 | 2 | 0 |   | 3539 | 2.0     |     | 0.0     | 0.0     |
| 0 | 3 | 0 |   | 3540 | #DIV/0! |     | 0.0     | #DIV/0! |
| 1 | 1 | 1 |   | 3541 | 1.0     |     | 1.0     | 1.0     |
| 2 | 1 | 0 |   | 3542 | 0.5     |     | 0.0     | 0.0     |
| 2 | 0 | 1 |   | 3543 | 0.0     |     | #DIV/0! | 0.5     |
| 1 | 0 | 2 |   | 3544 | 0.0     |     | #DIV/0! | 2.0     |
| 1 | 1 | 1 |   | 3545 | 1.0     |     | 1.0     | 1.0     |
| 0 | 0 | 3 |   | 3546 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 |   | 3547 | 1.0     |     | 1.0     | 1.0     |
| 1 | 1 | 1 |   | 3548 | 1.0     |     | 1.0     | 1.0     |
| 1 | 2 | 0 |   | 3549 | 2.0     |     | 0.0     | 0.0     |
| 1 | 1 | 1 |   | 3550 | 1.0     |     | 1.0     | 1.0     |
| 1 | 2 | 0 |   | 3551 | 2.0     |     | 0.0     | 0.0     |
| 0 | 3 | 0 |   | 3552 | #DIV/0! |     | 0.0     | #DIV/0! |
| 1 | 1 | 1 |   | 3553 | 1.0     |     | 1.0     | 1.0     |
| 1 | 2 | 0 |   | 3554 | 2.0     |     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 2 | 0 | 1 | TGTTTATAAA  | 3555 | 0.0     | #DIV/0! | 0.5     |
| 2 | 1 | 0 | TGTTTGAAGG  | 3556 | 0.5     | 0.0     | 0.0     |
| 0 | 2 | 1 | TTAACACAAA  | 3557 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 2 | 0 | TTAACCTATA  | 3558 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0 | TTAAGTTTCG  | 3559 | 2.0     | 0.0     | 0.0     |
| 3 | 0 | 0 | TTAATTATCT  | 3560 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 1 | TTACCACTTC  | 3561 | 0.0     | #DIV/0! | 0.5     |
| 1 | 2 | 0 | TTACTAAGGA  | 3562 | 2.0     | 0.0     | 0.0     |
| 0 | 2 | 1 | TTAGAATGCA  | 3563 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 1 | 2 | TTAGAGATTG  | 3564 | #DIV/0! | 2.0     | #DIV/0! |
| 1 | 0 | 2 | TTAGGAAGCG  | 3565 | 0.0     | #DIV/0! | 2.0     |
| 2 | 0 | 1 | TTAGGGCATA  | 3566 | 0.0     | #DIV/0! | 0.5     |
| 1 | 2 | 0 | TTAGTTCCTA  | 3567 | 2.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | TTAGTTTCCA  | 3568 | 1.0     | 1.0     | 1.0     |
| 1 | 2 | 0 | TTAGTTTCTG  | 3569 | 2.0     | 0.0     | 0.0     |
| 0 | 3 | 0 | TTATATAAAA  | 3570 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 1 | TTATATGGTG  | 3571 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 0 | 2 | TTATTTCTAA  | 3572 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 1 | TTCAAAAAACA | 3573 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | TTCAAAACTG  | 3574 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | TTCATAAGTT  | 3575 | 1.0     | 1.0     | 1.0     |
| 0 | 0 | 3 | TTCCACAGGA  | 3576 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | TTCGTAAACT  | 3577 | 1.0     | 1.0     | 1.0     |
| 1 | 0 | 2 | TTCGTCCACT  | 3578 | 0.0     | #DIV/0! | 2.0     |
| 0 | 3 | 0 | TTCTAGATGC  | 3579 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 3 | 0 | TTCTATAAAT  | 3580 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 2 | TTGAACCTCAG | 3581 | 0.0     | #DIV/0! | 2.0     |
| 1 | 2 | 0 | TTGAAGAAAA  | 3582 | 2.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 2 | 1 | 1 | TTGAAGAAAT | 3583 | #DIV/0! | 0.5     | #DIV/0! |
| 2 | 0 | 1 | 1 | TTGAAGTAGT | 3584 | 0.0     | #DIV/0! | 0.5     |
| 3 | 0 | 0 | 0 | TTGAGGATTT | 3585 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 2 | 2 | TTGATGATTT | 3586 | 0.0     | #DIV/0! | 2.0     |
| 0 | 3 | 0 | 0 | TTGATTACTT | 3587 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 1 | 1 | TTGCAGTCTT | 3588 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | 1 | TTGCCTGCTT | 3589 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | 0 | TTGCTTCACA | 3590 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | TTGGATAATT | 3591 | 0.5     | 0.0     | 0.0     |
| 1 | 2 | 0 | 0 | TTGGCCAAAG | 3592 | 2.0     | 0.0     | 0.0     |
| 1 | 2 | 0 | 0 | TTGGGAGCGG | 3593 | 2.0     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | TTGTATAAAG | 3594 | 0.5     | 0.0     | 0.0     |
| 2 | 1 | 0 | 0 | TTGTCAAAAA | 3595 | 0.5     | 0.0     | 0.0     |
| 1 | 0 | 2 | 2 | TTGTGCGACC | 3596 | 0.0     | #DIV/0! | 0.0     |
| 0 | 3 | 0 | 0 | TTTATTTGAG | 3597 | #DIV/0! | 0.0     | 2.0     |
| 2 | 0 | 1 | 1 | TTTCAAAAAA | 3598 | 0.0     | #DIV/0! | 0.5     |
| 2 | 0 | 1 | 1 | TTTCCGATTT | 3599 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | 1 | TTTCTGCTCC | 3600 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | 1 | TTTGAAAAAT | 3601 | #DIV/0! | 0.5     | #DIV/0! |
| 0 | 1 | 2 | 2 | TTTGATTTGA | 3602 | #DIV/0! | 2.0     | #DIV/0! |
| 2 | 0 | 1 | 1 | TTTGCTCGCG | 3603 | 0.0     | #DIV/0! | 0.5     |
| 1 | 1 | 1 | 1 | TTTGGTAACA | 3604 | 1.0     | 1.0     | 1.0     |
| 0 | 2 | 1 | 1 | TTTACAAACC | 3605 | #DIV/0! | 0.5     | #DIV/0! |
| 1 | 1 | 1 | 1 | TTTCACTGG  | 3606 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | 0 | TTTTCAGATG | 3607 | 0.5     | 0.0     | 0.0     |
| 1 | 1 | 1 | 1 | TTTTGTTTTT | 3608 | 1.0     | 1.0     | 1.0     |
| 2 | 1 | 0 | 0 | TTTTATAAG  | 3609 | 0.5     | 0.0     | 0.0     |
| 3 | 0 | 0 | 0 | TTTTTGCCAA | 3610 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |    |            |      |         |         |         |
|---|---|----|------------|------|---------|---------|---------|
| 2 | 0 | 1  | TITTTGGAGT | 3611 | 0.0     | #DIV/0! | 0.5     |
| 1 | 0 | 2  | TITTTCCGA  | 3612 | 0.0     | #DIV/0! | 2.0     |
| 1 | 1 | 0  | AAAAAAAC   | 3613 | 1.0     | 0.0     | 1.0     |
| 0 | 1 | 1  | AAAAAACTG  | 3614 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1  | AAAAAAGGT  | 3615 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1  | AAAAAACTGC | 3616 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1  | AAAAAAGAAA | 3617 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0  | AAAAAAGTTA | 3618 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0  | AAAAAATCAT | 3619 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0  | AAAAAGATAC | 3620 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1  | AAAAAGGGTG | 3621 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1  | AAAAATAGAG | 3622 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0  | AAAAATTTAT | 3623 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1  | AAACAGAGAG | 3624 | #DIV/0! | 1.0     | 0.0     |
| 1 | 0 | 1  | AAACGATTT  | 3625 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 1  | AAAGAATCC  | 3626 | #DIV/0! | 1.0     | 1.0     |
| 0 | 2 | 0  | AAAGAAATTT | 3627 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1  | AAAGTAGTT  | 3628 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1  | AAATACAGC  | 3629 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1  | AAATAGTGA  | 3630 | 0.0     | 1.0     | 1.0     |
| 1 | 1 | 0  | AAATATCTT  | 3631 | 1.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1  | AAATGACCG  | 3632 | #DIV/0! | 1.0     | 0.0     |
| 1 | 1 | 0  | AAATTGTC   | 3633 | 1.0     | 0.0     | #DIV/0! |
| 1 | 1 | 0. | AAATTTATA  | 3634 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2  | AAACAACTG  | 3635 | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 1  | AAACAAGTGG | 3636 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 2 | 0  | AAACCAGTTG | 3637 | #DIV/0! | 0.0     | 1.0     |
| 1 | 0 | 1  | AAACCATTTA | 3638 | 0.0     | #DIV/0! | #DIV/0! |
|   |   |    |            |      |         |         | 1.0     |



Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 2 | AAACCGGATG  | 3639 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | AAACCGTGAA  | 3640 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | AAACGACTGT  | 3641 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | AAACGTCGCA  | 3642 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | AAACTATACC  | 3643 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | AAACTCTCTG  | 3644 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | AAACTCTTGA  | 3645 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | AAAGAAAAAA  | 3646 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | AAAGACTAAA  | 3647 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | AAAGAGCGAG  | 3648 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | AAAGATCCGA  | 3649 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | AAAGATTTCG  | 3650 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | AAAGCAGAGC  | 3651 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | AAAGCTGTCTG | 3652 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | AAAGCTTTAG  | 3653 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | AAAGGTCGTT  | 3654 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | AAAGTGCTAC  | 3655 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | AAAGTTTGGT  | 3656 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | AAATAAAAAA  | 3657 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | AAATAATTTT  | 3658 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | AAATACGACA  | 3659 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | AAATCATCTA  | 3660 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | AAATCCAATG  | 3661 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | AAATGAGTTT  | 3662 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | AAATGATTGG  | 3663 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | AAATTACAAA  | 3664 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | AAATTCAAAA  | 3665 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | AAATTGAATG  | 3666 | #DIV/0! | 1.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |         |
|---|---|---|------------|------|---------|---------|---------|---------|
| 1 | 1 | 0 | AAATGCTTC  | 3667 | 1.0     | 0.0     | 0.0     | #DIV/0! |
| 0 | 2 | 0 | AAATTCATT  | 3668 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 1 | 0 | AAATTTGGG  | 3669 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | AACAAATGG  | 3670 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | AACAAAGTTT | 3671 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | AACAAGAATA | 3672 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 2 | 0 | AACAAGACTT | 3673 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 1 | 0 | AACAATCCAA | 3674 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | AACAATTCAG | 3675 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 0 | 1 | AACAATTCGC | 3676 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 2 | 0 | AACACAGCCA | 3677 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 1 | AACACTTGTC | 3678 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 0 | 2 | AACAGACAAT | 3679 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | AACAGACCCA | 3680 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 0 | 1 | AACAGGCTAT | 3681 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 0 | 1 | AACCAAGAC  | 3682 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 1 | 1 | AACCAGTGTC | 3683 | #DIV/0! | 1.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | AACCCITTTA | 3684 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 2 | 0 | AACCTTAACC | 3685 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 1 | 1 | AACGACTTGA | 3686 | #DIV/0! | 1.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | AACGTAGTGC | 3687 | #DIV/0! | 1.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | AACGTGGAAG | 3688 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | AACGTTTAAA | 3689 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 1 | 0 | AACTAATGGA | 3690 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | AACTATAATA | 3691 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 1 | 0 | AACTATGTTT | 3692 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | AACTCACAAA | 3693 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | AACTCGAAAA | 3694 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |              |      |         |         |         |
|---|---|---|---|--------------|------|---------|---------|---------|
| 1 | 1 | 1 | 0 | AAC TCG CACA | 3695 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | AAC TGA ACTG | 3696 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | AAC TGA AAGA | 3697 | #DIV/0! | 0.0     | 1.0     |
| 0 | 1 | 1 | 1 | AAC TGT ATGC | 3698 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AAC TTAT TTC | 3699 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | AAC TTCCTAA  | 3700 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | AAC TTG TAT  | 3701 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | AAG AAAGA AC | 3702 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AAG AAAT TCC | 3703 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 1 | 0 | AAG AAGA AGA | 3704 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | AAG ACCTGGC  | 3705 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | AAG ACTGTTG  | 3706 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | AAG AGAGTCA  | 3707 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | AAG AGCCAGA  | 3708 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | AAG AGGATTG  | 3709 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | AAG ATCATCG  | 3710 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | AAG ATGAAGA  | 3711 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AAG ATGAAGG  | 3712 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AAG ATGAGTT  | 3713 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | AAG ATGGAAT  | 3714 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | AAG ATTGGAC  | 3715 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | AAG CAAACTG  | 3716 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 0 | 2 | AAG CCATTCA  | 3717 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | AAG CCTTAGC  | 3718 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AAG CGCACAA  | 3719 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | AAG CTATTCA  | 3720 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | AAG CTTCATC  | 3721 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | AAG GACTTGC  | 3722 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 1 | 0 | 0 | AAGGACTTTA | 3723 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | AAGGAGACAC | 3724 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | AAGGAGAGGA | 3725 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | AAGGATTGAG | 3726 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | AAGGCCAGAG | 3727 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AAGGCTAATG | 3728 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | AAGGGTTTGG | 3729 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | AAGTACCAAT | 3730 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | AAGTCATTGG | 3731 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | AAGTCCAAC  | 3732 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AAGTCTACAT | 3733 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AAGTCTCAGC | 3734 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | AAGTGATGAA | 3735 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AAGTGGAGGA | 3736 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | AAGTGGTTTA | 3737 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | AAGTTACAAT | 3738 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | AAGTTATAGT | 3739 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AAGTTCTCCA | 3740 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | AAGTTGAGGA | 3741 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | AAGTTGCAAC | 3742 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | AAGTTGGCTA | 3743 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | AAGTTTGATC | 3744 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | AAGTTTTTTT | 3745 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | AATAAGACA  | 3746 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AATACCAATG | 3747 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AATACGCATA | 3748 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AATACGTTAC | 3749 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AATAGAGGAT | 3750 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | AATAGCAGCA | 3751 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AATAGCCTCA | 3752 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | AATATATATA | 3753 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | AATATCAAGG | 3754 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AATATGACGA | 3755 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AATATTATT  | 3756 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AATCAATAAA | 3757 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | AATCCAGGTG | 3758 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AATCCATTCC | 3759 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | AATCCCAGTT | 3760 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | AATCGAGAAA | 3761 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AATCTACTTT | 3762 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | AATGAAACAA | 3763 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | AATGAAGAAC | 3764 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | AATGACTTAT | 3765 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | AATGGGAAAA | 3766 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AATGGGTTTT | 3767 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AATGTAATAT | 3768 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | AATGTACAGA | 3769 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | AATGTATAAC | 3770 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AATGTGCACT | 3771 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AATGTGCTGT | 3772 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AATGTGGAAC | 3773 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AATTAAGATC | 3774 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | AATTATTGAA | 3775 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | AATTCAGGTC | 3776 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | AATTCCTTTT | 3777 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AATTGAAAAA | 3778 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 1 | 1 | 0 | AATTGAAGTA  | 3779 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | AATTGGCGAA  | 3780 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | AATTGGTTCA  | 3781 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AATTTAAGAC  | 3782 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | AATTTACACAG | 3783 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | AATTTGGTGG  | 3784 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AATTTTTCGA  | 3785 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | ACAAAGAAAG  | 3786 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | ACAAATGGGT  | 3787 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | ACAAGAACTT  | 3788 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | ACAAGCCCAA  | 3789 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | ACAAGGAAC   | 3790 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | ACAATAGATT  | 3791 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | ACAATGATGA  | 3792 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | ACACATCATA  | 3793 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | ACACCACCAG  | 3794 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | ACACCAGAAG  | 3795 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | ACACCCCAAGG | 3796 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | ACACGTAAAA  | 3797 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | ACACGTACAA  | 3798 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | ACAGAAAAAA  | 3799 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | ACAGAAATATC | 3800 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | ACAGATTCTT  | 3801 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | ACAGGCACCC  | 3802 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | ACAGGCTTGC  | 3803 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | ACATACTTGG  | 3804 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | ACATCACTGA  | 3805 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | ACATCATTAC  | 3806 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 2 | 0 | 0 | ACCAAAATGT  | 3807 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | 0 | ACCAACAAGA  | 3808 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | 0 | ACCAGACCAG  | 3809 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | 0 | ACCAGGTCCT  | 3810 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | 0 | ACCATCGAAT  | 3811 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | 0 | ACCCAAGCAA  | 3812 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | 0 | ACCCCGTACA  | 3813 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | ACCGAATTG   | 3814 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | 0 | ACGCAAGA    | 3815 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | 0 | ACGCATTAG   | 3816 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | 0 | ACGCCTAGG   | 3817 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | 0 | ACGGGACGTT  | 3818 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | 0 | ACGGTTACAT  | 3819 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | 0 | ACCGTTGTGC  | 3820 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 0 | ACCTATAATT  | 3821 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | 0 | ACCTTTTITAG | 3822 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | 0 | ACGAAATAGA  | 3823 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | 0 | ACGAACACTT  | 3824 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | 0 | ACGAAGGACT  | 3825 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | 0 | ACGAATTAA   | 3826 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | 0 | ACGAATTGTG  | 3827 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | 0 | ACGATGCAAA  | 3828 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 0 | ACGATTGGCT  | 3829 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | 0 | ACGCAGCCAG  | 3830 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | 0 | ACGCCGCCAA  | 3831 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | 0 | ACGCCTGATT  | 3832 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | 0 | ACGCCTGGAT  | 3833 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | 0 | ACGGACTTCT  | 3834 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 1 | ACGGCAAATA | 3835 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | ACGGTCAGGG | 3836 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | ACGTATTATG | 3837 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | ACGTCATTGA | 3838 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | ACGTCITTTT | 3839 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | ACGTGCAGTA | 3840 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | ACGTTATATA | 3841 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | ACGTTCAAAT | 3842 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | ACTAAGACAT | 3843 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | ACTAATGACG | 3844 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | ACTAGGCCAC | 3845 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | ACTATATGTT | 3846 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | ACTATTCTGT | 3847 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | ACTCAAAAAG | 3848 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | ACTCCCTGTA | 3849 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | ACTCCTGGAA | 3850 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | ACTCCTGTTG | 3851 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | ACTCTTACTT | 3852 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | ACTCTTTCTG | 3853 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | ACTGAAAAAA | 3854 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | ACTGAGTGTC | 3855 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | ACTGCATCTG | 3856 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | ACTGCTATTT | 3857 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | ACTGCTGATA | 3858 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | ACTGTTTATG | 3859 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | ACTTAAAAAA | 3860 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | ACTTATATCT | 3861 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | ACTTATTTTA | 3862 | 0.0     | #DIV/0! | 0.0     |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 1 | 1 | 0 | ACTTCTGGTC  | 3863 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | ACTTGATATA  | 3864 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | ACTTGCTTTA  | 3865 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | ACTTGGTATG  | 3866 | #DIV/0! |         | #DIV/0! |
| 1 | 1 | 1 | 0 | ACTTTCTAAT  | 3867 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | ACTTTTAAAC  | 3868 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | AGAAAAAAC   | 3869 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | AGAAACAAGT  | 3870 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 0 | AGAAAGCTAT  | 3871 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | AGAAAGTCAG  | 3872 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AGAAATATGT  | 3873 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AGAAATTGG   | 3874 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | AGACATAAAC  | 3875 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AGAGAACA    | 3876 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AGAAGGGCTA  | 3877 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | AGAATTGATT  | 3878 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | AGACAAACCG  | 3879 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | AGACAACTC   | 3880 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 2 | AGACAACTGA  | 3881 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | AGACAGGCCA  | 3882 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | AGACCAAGTGC | 3883 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | AGACCTGCCC  | 3884 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | AGAGAGCAAG  | 3885 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | AGAGAGGTAT  | 3886 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AGAGCAGCTG  | 3887 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | AGAGCGAATT  | 3888 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | AGAGGGATGA  | 3889 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | AGAGTATTTT  | 3890 | #DIV/0! | 1.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |   |   |            |      |         |         |         |
|---|---|---|---|---|---|------------|------|---------|---------|---------|
| 2 | 0 | 0 | 0 | 0 | 0 | AGAGTTTAC  | 3891 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | 1 | 1 | AGATACTGAC | 3892 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | 1 | 1 | AGATATGGAT | 3893 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | 0 | 0 | AGATCGAGGA | 3894 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | 1 | 1 | AGATTGTGCC | 3895 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | 0 | AGCAAGAAGA | 3896 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | 0 | 0 | AGCAATTTT  | 3897 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 1 | 1 | 1 | AGCACACGCT | 3898 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | 1 | 1 | AGCACCTATG | 3899 | #DIV/0! | 1.0     | 1.0     |
| 0 | 1 | 1 | 1 | 1 | 1 | AGCACTCCCT | 3900 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | 0 | AGCATATCAA | 3901 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | 1 | 1 | AGCCATAATT | 3902 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | 0 | AGCCCACGGC | 3903 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 0 | 2 | 2 | 2 | AGCCCGTTTT | 3904 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | 2 | AGCGAATGTA | 3905 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 2 | 0 | 0 | 0 | AGCGTTTGAT | 3906 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | 0 | AGCTATCTTT | 3907 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 1 | 1 | AGCTATTATA | 3908 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | 0 | AGGAAAAAGA | 3909 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 2 | 2 | 2 | AGGAAGCAAG | 3910 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | 2 | AGGACACTCA | 3911 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | 0 | AGGAGAACAC | 3912 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | 0 | 0 | AGGAGGGTAT | 3913 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 2 | 0 | 0 | 0 | AGGATCCGAA | 3914 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | 1 | 1 | AGGCAAGAGA | 3915 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | 1 | 1 | AGGCAGCGCT | 3916 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 0 | 1 | 1 | 1 | AGGCCGTTTT | 3917 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 0 | 2 | 2 | 2 | AGGCTGCAGT | 3918 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | AGGGTCATTC  | 3919 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AGGGTCTTG   | 3920 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | AGGTAGGGTG  | 3921 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | AGGTATGCAC  | 3922 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | AGGTCTATGG  | 3923 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | AGGTGCAAAA  | 3924 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AGGTGCATCA  | 3925 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | AGGTGGTTAA  | 3926 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | AGGTTCAAAA  | 3927 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AGGTGACAT   | 3928 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AGTATAGCTA  | 3929 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | AGTGACGATG  | 3930 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | AGTGACTTAC  | 3931 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | AGTGATTGTT  | 3932 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | AGTGCCAATG  | 3933 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | AGTGGAAAAG  | 3934 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | AGTGTGTCTA  | 3935 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | AGTGTTAACG  | 3936 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AGTTATTCCTC | 3937 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | AGTTGTATCC  | 3938 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | AGTTTCAAAA  | 3939 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | AGTTTCGGTT  | 3940 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | AGTTTTCCTG  | 3941 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | ATAAAATCTT  | 3942 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | ATAAACCACT  | 3943 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | ATAAACCTGA  | 3944 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | ATAACACCTC  | 3945 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | ATAACTTCGG  | 3946 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | 1 | ATAAGACGGC  | 3947 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | 0 | ATAAGTAAAA  | 3948 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | 0 | ATAAGTGTGC  | 3949 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | 0 | ATAATAATGG  | 3950 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 1 | ATAATGATAC  | 3951 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | ATAATTGGAG  | 3952 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | 0 | ATAATTTTT   | 3953 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 1 | ATACAGATTC  | 3954 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | ATACATCGCA  | 3955 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | 0 | ATACCAAGTT  | 3956 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | 0 | ATACCCAATT  | 3957 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | ATACGTGTAC  | 3958 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | 0 | ATACTTGAAT  | 3959 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | 0 | ATAGCAAAAGG | 3960 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | 0 | ATAGTACAGA  | 3961 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 1 | ATAGTAGATG  | 3962 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | ATATAAAAA   | 3963 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | 0 | ATATAGACGC  | 3964 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | 1 | ATATATAATC  | 3965 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | 1 | ATATATTGGA  | 3966 | #DIV/0! | 1.0     | 1.0     |
| 1 | 0 | 1 | 1 | 1 | ATATCCCTAC  | 3967 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | 1 | ATATGACGTC  | 3968 | #DIV/0! | 1.0     | 1.0     |
| 1 | 1 | 1 | 0 | 0 | ATATTGAATC  | 3969 | 1.0     | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | 0 | ATCAACGGGG  | 3970 | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 1 | ATCACAGTAT  | 3971 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | ATCACCTATT  | 3972 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | ATCACTGGGT  | 3973 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 1 | 1 | ATCACTGGTT  | 3974 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 2 | ATCAGAATGC  | 3975 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | ATCATAATCA  | 3976 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | ATCATTGCAA  | 3977 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | ATCATTTTAT  | 3978 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | ATCCAGTTGA  | 3979 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | ATCCGCCAGA  | 3980 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | ATCCTTCAGG  | 3981 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | ATCGCGATTG  | 3982 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | ATCGCGGCTC  | 3983 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | ATCGGTGGTC  | 3984 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | ATCTAATAAT  | 3985 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | ATCTCTTGAG  | 3986 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | ATCTGTATGT  | 3987 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | ATCTTTAATC  | 3988 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | ATCTTTATCA  | 3989 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | ATCTTTCACC  | 3990 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | ATGAACCTTAT | 3991 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | ATGAACCTTG  | 3992 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | ATGAAGACGT  | 3993 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | ATGAAGGTTG  | 3994 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | ATGACCCCAA  | 3995 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | ATGACGATGA  | 3996 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | ATGACGCTAA  | 3997 | #DIV/0! | 1.0     | 0.0     |
| 0 | 1 | 1 | ATGACGTGGA  | 3998 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | ATGAGCATT   | 3999 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | ATGAGCTTTA  | 4000 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | ATGAGGCGCT  | 4001 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | ATGAGTTATT  | 4002 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 1 | ATGAGTTGG  | 4003 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | ATGATGGCAC | 4004 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | ATGATGTGAT | 4005 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | ATGATTGTA  | 4006 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | ATGCAAAAA  | 4007 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | ATGCAAGAA  | 4008 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | ATGCAGAGTA | 4009 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | ATGCATTATG | 4010 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | ATGCTATGTC | 4011 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | ATGCTGGAGT | 4012 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | ATGCTGTAA  | 4013 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | ATGGAACCTG | 4014 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | ATGGAGCATC | 4015 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | ATGGAGGTTT | 4016 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | ATGGCTCAGT | 4017 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | ATGGGATAAA | 4018 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | ATGGTTTTAA | 4019 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | ATGTAGATGG | 4020 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | ATGTCAGTGA | 4021 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | ATTAATAAA  | 4022 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | ATTAATATGA | 4023 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | ATTAATGACC | 4024 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | ATTACTGCCA | 4025 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | ATTATTCTTG | 4026 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | ATTCACGTAT | 4027 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | ATTCCTGGT  | 4028 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | ATTCCTTGCA | 4029 | 1.0     | 0.0     | 0.0     |
|   |   |   |            | 4030 | #DIV/0! | 1.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | ATTCGTAAAG  | 4031 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | ATTCGTGATC  | 4032 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | ATTGAAAAA   | 4033 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | ATTGAGCAA   | 4034 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | ATTGATGCGG  | 4035 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | ATTGCGCCT   | 4036 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | ATTGCGCTTA  | 4037 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | ATTGCGGTCT  | 4038 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | ATTGCTACTT  | 4039 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | ATTGCTTTAC  | 4040 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | ATTGTAAAA   | 4041 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | ATTGTAGTAA  | 4042 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | ATTGTGATTG  | 4043 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | ATTGTTTAAC  | 4044 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | ATTGTTTGCA  | 4045 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | ATTGAAAACA  | 4046 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | ATTGTAATACC | 4047 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | ATTGCCCTAA  | 4048 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | ATTGGGAAC   | 4049 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | ATTGTATAT   | 4050 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | ATTGTATATA  | 4051 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | ATTGTGAAA   | 4052 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | ATTGTGCTA   | 4053 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 0 | ATTTTTTCT   | 4054 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | ATTTTTTTT   | 4055 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | CAAAAGTCG   | 4056 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | CAAAACCCCTA | 4057 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | CAAACTTTTC  | 4058 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 1 | CAAATAAGTG  | 4059 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | CAAAATGAGAA | 4060 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | CAAATGCATT  | 4061 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | CAAATTGTGT  | 4062 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | CAACAATGGC  | 4063 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | CAACCAGTTA  | 4064 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | CAACTAGCAA  | 4065 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | CAAGAAGAAA  | 4066 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | CAAGAAGGGC  | 4067 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | CAAGACCAGT  | 4068 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | CAAGATGAAA  | 4069 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CAAGCGTGCA  | 4070 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | CAAGCTTTCT  | 4071 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | CAAGTAGATA  | 4072 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | CAAGTTAAAA  | 4073 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | CAAGTTAGGA  | 4074 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | CAATATTCAA  | 4075 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | CAATGAATGA  | 4076 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | CAATGTATAT  | 4077 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | CAATTATTAA  | 4078 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | CAATTGGCAA  | 4079 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | CACAAAAGGA  | 4080 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | CACAACTACA  | 4081 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | CACACCAAGC  | 4082 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | CACACCAGGA  | 4083 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | CACACGCTCA  | 4084 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CACAGTACCT  | 4085 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | CACATAATCT  | 4086 | 0.0     | #DIV/0! | 1.0     |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | CACATCCTCA  | 4087 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | CACCAGTGTA  | 4088 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | CACCTATGAA  | 4089 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | CACGATCGAC  | 4090 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | CACTACCCAG  | 4091 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CACTATTAGC  | 4092 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CACTGTCTCC  | 4093 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | CACTTTATAA  | 4094 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | CAGAATTTC A | 4095 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | CAGACTTGGC  | 4096 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | CAGAGACGCT  | 4097 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 2 | CAGATGATAA  | 4098 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 0 | CAGCAACTAC  | 4099 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | 1 | CAGCTACTCA  | 4100 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 0 | 2 | CAGCTTATGG  | 4101 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 1 | CAGGATAAAC  | 4102 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | CAGGTTTAGC  | 4103 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | CAGTACAAAC  | 4104 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | CATAAAAAAA  | 4105 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | CATACAGCAA  | 4106 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | CATACTCTAT  | 4107 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | CATAGAAAAA  | 4108 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | CATAGAAAGT  | 4109 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CATAGAAGTG  | 4110 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | CATAGATCAA  | 4111 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 0 | 2 | CATAGGCGGT  | 4112 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 0 | CATAGGTGAA  | 4113 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | CATAGTGAT   | 4114 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 1 | CATCAAGGCG  | 4115 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | CATCACCAT   | 4116 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | CATCACCATC  | 4117 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | CATCCTCTCG  | 4118 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CATTAATATA  | 4119 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | CATTCAAAGG  | 4120 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | CATTCCTGAAT | 4121 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | CATTTACAC   | 4122 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CCAAAACIT   | 4123 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | CCAACAGGGT  | 4124 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | CCAACGAAAA  | 4125 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | CCAACGTTTT  | 4126 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | CCAAGGGTGT  | 4127 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | CCAAGGGTTC  | 4128 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | CCAAGTCTCG  | 4129 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CCACATTTCA  | 4130 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | CCACGGGTCT  | 4131 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | CCAGAAGAAA  | 4132 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | CCAGAATAGA  | 4133 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | CCAGACAGTG  | 4134 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | CCAGATATGC  | 4135 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | CCAGCGCGTA  | 4136 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | CCAGGTAATT  | 4137 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | CCATAAAAGC  | 4138 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | CCATATAGAC  | 4139 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | CCATCTTTTA  | 4140 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | CCATTAAATA  | 4141 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | CCATTAGAAT  | 4142 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 2 | 0 | 0 | 0 | CCATTCCAAC  | 4143 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | CCATTGTTCC  | 4144 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | CCATTTTGT   | 4145 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CCCAGATTG   | 4146 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | CCCATAGTGG  | 4147 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | CCCCAAGTGG  | 4148 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CCCGGATGTT  | 4149 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | CCCTAGCGCG  | 4150 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CCGAATAAGG  | 4151 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | CCGACGGCAG  | 4152 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | CCGATGATGG  | 4153 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | CCGCCTTCCC  | 4154 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | CCGCGCTGCG  | 4155 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | CCGGAAGAGC  | 4156 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CCGTGCGTGC  | 4157 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | CCGTTTCTTT  | 4158 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | CCTAAAAAA   | 4159 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | CCTAAGCAGT  | 4160 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | CCTACTTGGC  | 4161 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | CCTATTAAGC  | 4162 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | CCTCATCAAG  | 4163 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | CCTCCAAAGC  | 4164 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | CCTCCAGAAG  | 4165 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | CCTCTGGATA  | 4166 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | CCTCTTAAAA  | 4167 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CCTGTATTTT  | 4168 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CCTGTTTCGAG | 4169 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | CCTTGAGAAT  | 4170 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | CCITGIGGGA  | 4171 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | CCITTTCTAT  | 4172 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | CCITTTTCTA  | 4173 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | CGAAAAGGAA  | 4174 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CGAAACCCAA  | 4175 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | CGAAAGCTTT  | 4176 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | CGAAGGTAAG  | 4177 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CGACCTCACT  | 4178 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | CGACTATTGT  | 4179 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 0 | CGAGGAATAT  | 4180 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | CGAGTATTCT  | 4181 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | CGATTGAATA  | 4182 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | CGATTGCAAA  | 4183 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 0 | CGATTGGTG   | 4184 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | CGATTTTCAG  | 4185 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | CGCACCCCTGC | 4186 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CGCAGGTGAC  | 4187 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | CGCAGGTTAC  | 4188 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 1 | CGCCCCCTGAG | 4189 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | CGCCTATGGT  | 4190 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 1 | CGCGAAACTT  | 4191 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | CGCTAAATAA  | 4192 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CGCTACGTTT  | 4193 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 1 | CGCTCAGTTA  | 4194 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | CGCTTCTCAC  | 4195 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | CGGACACTTT  | 4196 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | CGGCCATCCG  | 4197 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CGGCCCCACAA | 4198 | #DIV/0! | 1.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 1 | CGGGATCAAG  | 4199 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CGGGTATTG   | 4200 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | CGGTAAAGT   | 4201 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | CGGTCTCTCT  | 4202 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | CGGTGGACAG  | 4203 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | CGGTGTTAAC  | 4204 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | CGTCACCTGT  | 4205 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | CGTCAGCTGT  | 4206 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | CGTCGTGGTG  | 4207 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | CGTGAACCTCA | 4208 | #DIV/0! | 1.0     | 0.0     |
| 2 | 0 | 0 | CGTGCAGTGC  | 4209 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | CGTGGTTTCA  | 4210 | #DIV/0! | 0.0     | 0.0     |
| 0 | 2 | 0 | CGTTAATAGA  | 4211 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | CGTTTGTAAG  | 4212 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | CGTTTGTTGA  | 4213 | 1.0     | 1.0     | #DIV/0! |
| 1 | 0 | 1 | CGTTTTCGTC  | 4214 | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | CGTTTTCCTCA | 4215 | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 1 | 1 | CTAAACAAAG  | 4216 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | CTAAATCTTG  | 4217 | 0.0     | 1.0     | #DIV/0! |
| 1 | 0 | 1 | CTAACTAAGC  | 4218 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | CTAAGAATGA  | 4219 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CTAATACAAA  | 4220 | 1.0     | 0.0     | 1.0     |
| 1 | 0 | 1 | CTAATATGTG  | 4221 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | CTAATCACTG  | 4222 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CTAATCATTT  | 4223 | 1.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | CTACATAAAT  | 4224 | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 1 | CTACCACTAC  | 4225 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | CTAGCGTTTG  | 4226 | #DIV/0! | 1.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 1 | 1 | 0 | CTATAAACA  | 4227 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CTATATATCA | 4228 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | CTATCGGCA  | 4229 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | CTATGCCAAA | 4230 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | CTATTATGA  | 4231 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | CTATTCTCA  | 4232 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | CTCAAACTGC | 4233 | 0.0     | 1.0     | 1.0     |
| 0 | 2 | 0 | 0 | CTCAAATTGA | 4234 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | CTCACGGGAA | 4235 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 1 | 0 | CTCAGCAGCA | 4236 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CTCAGGATGA | 4237 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | CTCCAAATG  | 4238 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | CTCCAGAAGA | 4239 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | CTCCATAGAC | 4240 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | CTCGTTCACT | 4241 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | CTCTAAATTT | 4242 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | CTCTACTTAT | 4243 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | CTCTATTATT | 4244 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | CTCTATTGAT | 4245 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | CTCTCCAATC | 4246 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | CTCTCCCCCA | 4247 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | CTCTCCTATT | 4248 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | CTCTGTGCG  | 4249 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | CTCTAGTTG  | 4250 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | CTCTTGATT  | 4251 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | CTCTTGCCAA | 4252 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | CTGAAGGAAA | 4253 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | CTGACACTAG | 4254 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 2 | 0 | 0 | CTGATAAAGG  | 4255 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | 1 | CTGATATCTT  | 4256 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 0 | 0 | CTGATCCGCG  | 4257 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | CTGCACGAAT  | 4258 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 0 | 2 | 2 | CTGCCGAAGA  | 4259 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 0 | 0 | CTGCCCTTCT  | 4260 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | CTGCGTTTAT  | 4261 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 1 | 0 | 0 | CTGCTAAGCG  | 4262 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | 1 | 1 | CTGCTCCGGG  | 4263 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 1 | 1 | 1 | CTGCTGTTTCG | 4264 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | CTGCTTCCTA  | 4265 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | CTGGATGATC  | 4266 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | CTGGCAACCA  | 4267 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 1 | 1 | CTGGCAGAAT  | 4268 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 0 | 1 | 1 | CTGGCAGACC  | 4269 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 2 | 0 | 0 | CTGGCGAACG  | 4270 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | CTGGCTCTTT  | 4271 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | CTGGCTTGCG  | 4272 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | 1 | 1 | CTGGGTCTA   | 4273 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | 1 | CTGGTCGCGA  | 4274 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | 1 | CTGTATAATA  | 4275 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | 1 | CTGTTATCAT  | 4276 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | 1 | CTGTTTTAGT  | 4277 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | 0 | CTTAAAAAAA  | 4278 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | 1 | CTTAACAAGA  | 4279 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 0 | 1 | 1 | CTTAAGAACG  | 4280 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 0 | 2 | 2 | CTTAATGTGT  | 4281 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 2 | 0 | 0 | CTTAGGGAAC  | 4282 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 1 | 1 | 0 | CITATGGAGA | 4283 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | CTTATTTTT  | 4284 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | CTTCAGAATG | 4285 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 1 | CTTCAGCCCA | 4286 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | CTTCCAAAG  | 4287 | 1.0     | 0.0     | 1.0     |
| 0 | 2 | 0 | CTTCCCAAT  | 4288 | #DIV/0! | 0.0     | 0.0     |
| 0 | 0 | 2 | CTTCGTACC  | 4289 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | CTTCTCCTT  | 4290 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | CTTCTCCGC  | 4291 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | CTTGAGCTAG | 4292 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | CTTGATATCT | 4293 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | CTTGATTAGT | 4294 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | CTTGCGTGA  | 4295 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | CTTGTCGCAC | 4296 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | CTTGTCCTTG | 4297 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | CTTGTTCAA  | 4298 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | CTTGTTGTC  | 4299 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | CTTTAGAAGA | 4300 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | CTTTCCTCTT | 4301 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | CTTTCGTTTT | 4302 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | CTTTTCTGT  | 4303 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | CTTTTGAACA | 4304 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | CTTTTGTAG  | 4305 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | GAAAAAAGC  | 4306 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | GAAACACGT  | 4307 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | GAAACGTTT  | 4308 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | GAAATGAAA  | 4309 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | GAAATATT   | 4310 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|---------|
| 1 | 1 | 1 | 0 | GAAATTTGGA  | 4311 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GAAATTTGGG  | 4312 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GAAACAAGGT  | 4313 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GAAACGCTCT  | 4314 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GAAACGTTGT  | 4315 | #DIV/0! | 1.0     | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GAAAGATAAT  | 4316 | #DIV/0! | 1.0     | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GAAAGCATAA  | 4317 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GAAAGTTTGA  | 4318 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GAAATGTGGA  | 4319 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GAAATTGAAA  | 4320 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GAACAAAACG  | 4321 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GAACAATCTT  | 4322 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GAACAATTCG  | 4323 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GAACAGCAGA  | 4324 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GAACAGCAGG  | 4325 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GAACGAGAAG  | 4326 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GAACGATCCT  | 4327 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GAACGTATAT  | 4328 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GAACCTCCTGG | 4329 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GAAC TGAAAA | 4330 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GAAC TTGTTA | 4331 | #DIV/0! | 1.0     | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GAAGAATCAG  | 4332 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | GAAGACAGCG  | 4333 | #DIV/0! | 1.0     | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GAAGCTCCCA  | 4334 | #DIV/0! | 1.0     | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GAAGGCGTTT  | 4335 | #DIV/0! | 1.0     | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GAAGGTAGAT  | 4336 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GAAGGTTGGT  | 4337 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 0 | 0 | 2 | GAAGTAGAAA  | 4338 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 2 | 0 | 0 | 0 | GAAGTGATAT  | 4339 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | GAAGTTCAGT  | 4340 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GAATAACGAA  | 4341 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GAATAATGTC  | 4342 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | GAATGGGACT  | 4343 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | GAATGTTTAT  | 4344 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | GAATTGAGCA  | 4345 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | GAATTGTGGC  | 4346 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GAATTTTAGA  | 4347 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | GACAAAGACA  | 4348 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | GACAAACAAGA | 4349 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GACAAACACC  | 4350 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GACAACGTGG  | 4351 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GACAAGCTTG  | 4352 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GACAAGGATG  | 4353 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GACAATTTT   | 4354 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GACACCTATG  | 4355 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | GACACTTCTC  | 4356 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GACATAGAAA  | 4357 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GACATCAAGC  | 4358 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GACATCAGTT  | 4359 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GACATTTCTT  | 4360 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GACATTTGAA  | 4361 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GACCAATATC  | 4362 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GACCCAGGCA  | 4363 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GACGAATATT  | 4364 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GACGCTTCAC  | 4365 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GACGTCCAAC  | 4366 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 2 | GACTAATGTA  | 4367 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | GACTATTAG   | 4368 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GACTCAAAAT  | 4369 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GACTCGATAA  | 4370 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GACTCGCTTT  | 4371 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GACTCTATTG  | 4372 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GACTGAAGCT  | 4373 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GACTGATAGG  | 4374 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | GACTTCATAA  | 4375 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | GACTTCTTTC  | 4376 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | GAGAAAGAAA  | 4377 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GAGAACTCAC  | 4378 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | GAGAAAGACAG | 4379 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GAGACTTTTA  | 4380 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GAGAGATGAA  | 4381 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GAGAGCAACG  | 4382 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | GAGAGTTCGA  | 4383 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | GAGATGTTCC  | 4384 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GAGCAGGTGG  | 4385 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GAGCTCCGAT  | 4386 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GAGGATAGCC  | 4387 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 1 | 0 | GAGGATAGCG  | 4388 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GAGGCAAAAA  | 4389 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GAGGCGAGAT  | 4390 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 1 | 0 | GAGGGCTCAG  | 4391 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | GAGGTAAAGG  | 4392 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GAGGTCAAGA  | 4393 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GAGGTTAACCC | 4394 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | GAGTGGCCIT | 4395 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GAGTGGGTTA | 4396 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GAGTGTACAA | 4397 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GAGTTAGTGT | 4398 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GAGTTGATAA | 4399 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GAGTTTGCTA | 4400 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GATAAAAAAG | 4401 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GATAACTGAA | 4402 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GATAAGCCCG | 4403 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GATAATCGCA | 4404 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GATACCTTCA | 4405 | #DIV/0! | 1.0     | 1.0     |
| 2 | 0 | 0 | 0 | GATATATCAT | 4406 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GATATGCCGA | 4407 | 1.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | GATATTTTT  | 4408 | 0.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | GATCCAGATG | 4409 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GATCGCCGCT | 4410 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | GATCTCAATT | 4411 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GATGAAAACA | 4412 | #DIV/0! | 0.0     | 1.0     |
| 1 | 0 | 1 | 1 | GATGAAGACG | 4413 | 1.0     | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GATGAATACC | 4414 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GATGATGATG | 4415 | 1.0     | 0.0     | 1.0     |
| 1 | 1 | 0 | 0 | GATGCAATC  | 4416 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GATGGAATAG | 4417 | 1.0     | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GATGTCCAGA | 4418 | #DIV/0! | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | GATTACTTCA | 4419 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GATTCAAAAA | 4420 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GATTCGATAC | 4421 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GATTCTAAAA | 4422 | #DIV/0! | #DIV/0! | #DIV/0! |
|   |   |   |   |            |      | 0.0     | 1.0     | 1.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 2 | 0 | 0 | GATTCTGACT  | 4423 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GATTGCGATC  | 4424 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GATTGGAAT   | 4425 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GATTGGTGGT  | 4426 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | GATTGTGGAT  | 4427 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GATTGGCGC   | 4428 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GCAAACCCAA  | 4429 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GCAAACCCAC  | 4430 | #DIV/0! | 1.0     | 1.0     |
| 2 | 0 | 0 | 0 | GCAAAGAATA  | 4431 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GCAAATGATT  | 4432 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GCAACTGCGG  | 4433 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GCAAGAGAAG  | 4434 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GCAAGTTAGC  | 4435 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GCAATACTAT  | 4436 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 0 | GCAATGACAC  | 4437 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GCACATTCGA  | 4438 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GCACGAAGTA  | 4439 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GCACCTCAAC  | 4440 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GCAGATAGCG  | 4441 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | GCAGCCATTG  | 4442 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | GCAGTTGCCT  | 4443 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GCAGTTGCTT  | 4444 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GCATAAACG   | 4445 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GCATAACGAG  | 4446 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GCATCAACAA  | 4447 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | GCATCAATTGA | 4448 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GCATCCAAGA  | 4449 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GCATCTCTAA  | 4450 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | GCATTCCTTG  | 4451 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GCATTGATT   | 4452 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GCATTTTATC  | 4453 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | GCCAAACTGA  | 4454 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | GCCAAATCAT  | 4455 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GCCAAATGTT  | 4456 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GCCAAACGCCG | 4457 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GCCAAAGAACT | 4458 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GCCAAATCACA | 4459 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 1 | 0 | GCCAGAAACG  | 4460 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GCCAGATTGG  | 4461 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GCCAGATTGA  | 4462 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GCCAGTGGCG  | 4463 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GCCATTTTGG  | 4464 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 1 | 0 | GCCCAACTCA  | 4465 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | GCCCTTCCTA  | 4466 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GCCGAATTCT  | 4467 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GCCGATGTGC  | 4468 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 2 | GCCGGTTCAC  | 4469 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | GCCTAGTAAT  | 4470 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | GCCTGAAATG  | 4471 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | 1 | GCCTGCAAAT  | 4472 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GCCTGGGAAG  | 4473 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GCCTGGGATA  | 4474 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GCCTTGGGTA  | 4475 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GCCTTTTTTT  | 4476 | 0.0     | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | GCGAATAGTG  | 4477 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 2 | GCGATACTAC  | 4478 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|---------|
| 1 | 1 | 0 | 0 | GCGATCAAAA | 4479 | 1.0     | 0.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GCGATCTCTT | 4480 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GCGCCTCTCA | 4481 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GCGCTACTGC | 4482 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GCGCTCAAAA | 4483 | #DIV/0! | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GCGGCGGGTG | 4484 | #DIV/0! | 1.0     | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | GCGTACCGGC | 4485 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GCGTCCCTCC | 4486 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GCGTCTTTTA | 4487 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 1 | 1 | 0 | GCTAATACAT | 4488 | 1.0     | 0.0     | 0.0     | 1.0     |
| 0 | 1 | 1 | 1 | GCTACAGCAG | 4489 | #DIV/0! | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | GCTACCCAAT | 4490 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | GCTACCTAAA | 4491 | #DIV/0! | 1.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | GCTACCTACG | 4492 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GCTACTATTA | 4493 | #DIV/0! | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | GCTCAAATTG | 4494 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GCTCAATCCA | 4495 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GCTCTAAAA  | 4496 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GCTGAGCCCG | 4497 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GCTGCTACGC | 4498 | 1.0     | 0.0     | 0.0     | 1.0     |
| 0 | 0 | 2 | 2 | GCTGCTAGGC | 4499 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | GCTGCTCAAT | 4500 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | GCTGCTCAGA | 4501 | 0.0     | #DIV/0! | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GCTGGCTAAG | 4502 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GCTGGTAGTA | 4503 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GCTGTATTCT | 4504 | 1.0     | 0.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GCTGTTTTCA | 4505 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 2 | 0 | 0 | 0 | GCTTAAAAAA | 4506 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | GCTTAAAAAT  | 4507 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GCTTCGAACA  | 4508 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GCTTCTTATA  | 4509 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GCTTGCGCGT  | 4510 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GCTTGTACTT  | 4511 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GCTTTCCTTT  | 4512 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GCTTTGCTAA  | 4513 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GCTTTGTGT   | 4514 | 1.0     | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GCTTTTGTGA  | 4515 | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GGAAAAATTA  | 4516 | 0.0     | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GGAAATGCT   | 4517 | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | GGAAAGCCCA  | 4518 | 1.0     | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GGAACTTC    | 4519 | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GGAACTTCG   | 4520 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GGAACTCCATA | 4521 | #DIV/0! | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | GGAACTCTGGT | 4522 | 1.0     | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GGAACTGTGA  | 4523 | #DIV/0! | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GGAAATTAAGA | 4524 | 0.0     | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | GGACCCCACT  | 4525 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GGACCTTACT  | 4526 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GGACTCATAT  | 4527 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GGAGCAGTTA  | 4528 | #DIV/0! | 0.0     | 1.0     |
| 0 | 2 | 0 | 0 | GGAGCCCTGA  | 4529 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GGAGCGTATA  | 4530 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GGAGGAACCC  | 4531 | 1.0     | 0.0     | 1.0     |
| 0 | 2 | 0 | 0 | GGAGGATGGG  | 4532 | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GGAGGGAACG  | 4533 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GGAGTGCAAC  | 4534 | 0.0     | #DIV/0! | 1.0     |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|---------|
| 1 | 0 | 1 | 1 | GGAGTTAACG | 4535 | 0.0     | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GGATAGCACT | 4536 | #DIV/0! | 1.0     |         | #DIV/0! |
| 1 | 0 | 1 | 1 | GGATGATGGA | 4537 | 0.0     |         | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GGATGGCGAC | 4538 | #DIV/0! |         | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | GGATGGTAAG | 4539 | 1.0     | 0.0     |         | #DIV/0! |
| 1 | 0 | 1 | 1 | GGATTGGAC  | 4540 | 0.0     | #DIV/0! |         | 0.0     |
| 0 | 1 | 1 | 1 | GGCAAATCCA | 4541 | #DIV/0! | 1.0     |         | 1.0     |
| 0 | 0 | 2 | 2 | GGCAACGGTG | 4542 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | GGCAATAGCC | 4543 | #DIV/0! | 1.0     |         | #DIV/0! |
| 0 | 2 | 0 | 0 | GGCACCTGTC | 4544 | #DIV/0! | 0.0     |         | #DIV/0! |
| 2 | 0 | 0 | 0 | GGCAGATGAT | 4545 | 0.0     | #DIV/0! |         | 0.0     |
| 0 | 0 | 2 | 2 | GGCAGATTGG | 4546 | #DIV/0! |         | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GGCATAAACG | 4547 | 0.0     | #DIV/0! |         | #DIV/0! |
| 0 | 1 | 1 | 1 | GGCATCAGGA | 4548 | #DIV/0! | 1.0     |         | 1.0     |
| 1 | 1 | 0 | 0 | GGCCCATAGA | 4549 | 1.0     | 0.0     |         | #DIV/0! |
| 2 | 0 | 0 | 0 | GGCCTACCAC | 4550 | 0.0     |         | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GGCGATTGAT | 4551 | 0.0     | #DIV/0! |         | 0.0     |
| 2 | 0 | 0 | 0 | GGCGCTAAGA | 4552 | 0.0     | #DIV/0! |         | 1.0     |
| 1 | 0 | 1 | 1 | GGCGCTAATT | 4553 | 0.0     | #DIV/0! |         | 0.0     |
| 0 | 0 | 2 | 2 | GGCGGTGGTG | 4554 | #DIV/0! |         | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GGCGTAGAAT | 4555 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GGCGTTGACA | 4556 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 1 | 1 | GGCTCTCCCC | 4557 | #DIV/0! | 1.0     |         | #DIV/0! |
| 1 | 0 | 1 | 1 | GGCTGAGATA | 4558 | 0.0     | #DIV/0! |         | #DIV/0! |
| 1 | 1 | 0 | 0 | GGCTGTTTGG | 4559 | 1.0     | 0.0     |         | 1.0     |
| 0 | 1 | 1 | 1 | GGCTTCTCTA | 4560 | #DIV/0! |         | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GGCTTTACAA | 4561 | #DIV/0! | 1.0     |         | #DIV/0! |
| 0 | 1 | 1 | 1 | GGCTTTGGTT | 4562 | #DIV/0! | 1.0     |         | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 2 | GGGACTGATG | 4563 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | GGGAGAAATC | 4564 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GGGAGCTCAA | 4565 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | GGGAGGTCAT | 4566 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GGGATGATGA | 4567 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | GGGATTCCTG | 4568 | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GGGCCAACCC | 4569 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GGGCCAGCTT | 4570 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | GGGCTCTGAA | 4571 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GGGGTGCTAG | 4572 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GGGGTTAACG | 4573 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GGGTGGTATT | 4574 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GGGTGTTACC | 4575 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GGGTCTCTA  | 4576 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | GGTTGACAA  | 4577 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GGTAAACAA  | 4578 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GGTAAATACC | 4579 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GGTAACTCCA | 4580 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | GGTACGCAAG | 4581 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GGTCAAGAAT | 4582 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GGTCACTCCT | 4583 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GGTCCAGATG | 4584 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GGTCCAGCCT | 4585 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GGTCCAGTTA | 4586 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GGTCTCTCT  | 4587 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GGTCTCGGTT | 4588 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | 1 | GGTGAAGAAG | 4589 | #DIV/0! | 0.0     | #DIV/0! |
|   |   |   |   | GGTGAGGATT | 4590 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 2 | 0 | 0 | 0 | GGTGATAACG  | 4591 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | GGTGCTAACA  | 4592 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | GGTGCTAAGT  | 4593 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 1 | GGTGCTGAGA  | 4594 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | GGTGGTAACG  | 4595 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GGTGTAACG   | 4596 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GGTGTGGACT  | 4597 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | GGTGTTAACA  | 4598 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GGTGTTACAG  | 4599 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GGTGTTAAC   | 4600 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GGTTAAACGT  | 4601 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | GGTCCACGA   | 4602 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GGTTCGGTTA  | 4603 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GGTCTAATT   | 4604 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | GGTCTGGTT   | 4605 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | GGTTTAGGTT  | 4606 | #DIV/0! | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | GGTTTGATT   | 4607 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GGTTTIGATT  | 4608 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GTAAAAAAA   | 4609 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GTAAAGACCT  | 4610 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 2 | GTAACGATTG  | 4611 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GTAACGTACA  | 4612 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GTAACCTGGAC | 4613 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GTAAGAAATA  | 4614 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GTAAGGACGC  | 4615 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | GTACAAAAA   | 4616 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GTACAAGCAA  | 4617 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GTACACCTGA  | 4618 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 2 | GTACACCTGG  | 4619 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GTACAGGGCT  | 4620 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GTACCAACTC  | 4621 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | GTACCCGAAA  | 4622 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GTACCCTTAT  | 4623 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GTACGGTTGT  | 4624 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GTACTCCTCT  | 4625 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GTACTTCTAG  | 4626 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | GTACTTGTAC  | 4627 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | GTACTTTCGG  | 4628 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GTAGAACACC  | 4629 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GTAGATAGCG  | 4630 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GTAGCGATCG  | 4631 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GTAGCGGGTG  | 4632 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GTAGTTTGTC  | 4633 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GTATATATGC  | 4634 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GTATGGCCAC  | 4635 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GTATTC TAGT | 4636 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | GTATTGATTT  | 4637 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | GTCAAAAAAA  | 4638 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GTCAAGCAAT  | 4639 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GTCAATGGCT  | 4640 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GTCACGTTGG  | 4641 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | GTCACGTTGA  | 4642 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GTCATATGGT  | 4643 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | GTCATCACTT  | 4644 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GTCCTGAAA   | 4645 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GTCCTTTAG   | 4646 | 0.0     | #DIV/0! | 0.0     |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 2 | GTGGGACAAA | 4675 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GTGGGCTGCT | 4676 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GTGGGTATTG | 4677 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GTGGTCCTTT | 4678 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | GTGGTTCAT  | 4679 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | GTGTCATTGG | 4680 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GTGTGTTCTA | 4681 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | GTGTTCTTAC | 4682 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | GTGTTGAAAA | 4683 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GTGTTGAGAA | 4684 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | GTGTTGGTGC | 4685 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | GTTAACGATA | 4686 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | GTTAAGCCAA | 4687 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GTTAATGATG | 4688 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GTTACAAGAA | 4689 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | GTTACATCCG | 4690 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | GTTACCTACC | 4691 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GTTACGGCCA | 4692 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GTTAGAAGAG | 4693 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | GTTAGATCCC | 4694 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | GTTATCAGTG | 4695 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GTTATGGTCA | 4696 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | GTTATGTATT | 4697 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | GTTATTTATA | 4698 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | GTTATTTATC | 4699 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | GTTCAAAAAC | 4700 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | GTTCAACGGG | 4701 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GTTCAAGAAC | 4702 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |   |   |   |   |            |      |         |         |         |         |
|---|---|---|---|---|---|---|------------|------|---------|---------|---------|---------|
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | GTTCCAGAC  | 4703 | 0.0     | #DIV/0! | 1.0     | 1.0     |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | GTTCCGGTCA | 4704 | #DIV/0! | 1.0     | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTCTAAATA | 4705 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | 0 | 0 | 2 | GTTCTCTAGC | 4706 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | 2 | 0 | 0 | GTTCTCTTCT | 4707 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | GTTCTTATTT | 4708 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | 2 | 0 | 0 | GTTGAGATTT | 4709 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | 0 | 0 | 2 | GTTGATGCTA | 4710 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTGCGGTCC | 4711 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | 2 | 0 | 0 | GTTGGATAAA | 4712 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTGCTTCA  | 4713 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | GTTGTGAGCA | 4714 | #DIV/0! | 1.0     | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTGTGGGAG | 4715 | 1.0     | 0.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | GTTGTTACCG | 4716 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | GTTTAAAAAA | 4717 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | 2 | 0 | 0 | GTTTACAAAA | 4718 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | 0 | 0 | 2 | GTTTACCCAA | 4719 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTTCAGCGG | 4720 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | GTTTCCAAAA | 4721 | 0.0     | #DIV/0! | 1.0     | 1.0     |
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | GTTTCCCTTT | 4722 | 0.0     | #DIV/0! | 1.0     | 1.0     |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTTGAAAAA | 4723 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | GTTTGACCTA | 4724 | 0.0     | #DIV/0! | 1.0     | 1.0     |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTTGATTAC | 4725 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTTGCAATC | 4726 | 1.0     | 0.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | GTTGTAGAC  | 4727 | 1.0     | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | 0 | 0 | 2 | GTTGTGAAC  | 4728 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | GTTTTCACCA | 4729 | 0.0     | #DIV/0! | 1.0     | 1.0     |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | GTTTTCATIG | 4730 | 0.0     | #DIV/0! | 0.0     | 0.0     |





Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 2 | 0 | TACAACAATT | 4759 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | TACAATATAT | 4760 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | TACAATCTTA | 4761 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | TACACAAGTG | 4762 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | TACACCCAGC | 4763 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | TACACGCGG  | 4764 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | TACAGCTGTG | 4765 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | TACATACCTG | 4766 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | TACATTCTAA | 4767 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | TACATTGCT  | 4768 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | TACCAACTCT | 4769 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | TACCACCCCT | 4770 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | TACCACCTCG | 4771 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | TACCAGCAAA | 4772 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | TACCCGTAAG | 4773 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | TACCTCGTTA | 4774 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | TACCTTAGGT | 4775 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | TACCTTCTCT | 4776 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | TACGAGGACA | 4777 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | TACGAGGCAA | 4778 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | TACGCTAATA | 4779 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | TACGTCTCCA | 4780 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | TACGTTGCCG | 4781 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | TACTACTCCT | 4782 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | TACTATACAC | 4783 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | TAGTATGCTA | 4784 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | TACTCTCGCT | 4785 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | TACTCTCGTT | 4786 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 2 | 0 | 0 | TACTGGTTTA  | 4787 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TACTTATAA   | 4788 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TACTTGTTGG  | 4789 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TACTTTAAAC  | 4790 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TACTTTATCT  | 4791 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TACTTTGGAA  | 4792 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | TAGAAATGCG  | 4793 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | TAGAAAGAAA  | 4794 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | TAGATTGGCA  | 4795 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TAGATTTCAT  | 4796 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TAGCAAAGG   | 4797 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TAGCAACGGG  | 4798 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TAGCACC GCC | 4799 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | TAGCACTATT  | 4800 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | TAGCATAAAC  | 4801 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TAGCCAATTT  | 4802 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | TAGCCATACC  | 4803 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TAGCTGCCCA  | 4804 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | TAGCTTTTTC  | 4805 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | TAGGAAGAAA  | 4806 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TAGGCACCAA  | 4807 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TAGGCAGTGA  | 4808 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TAGTAGTAAC  | 4809 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | TAGTCGCTGT  | 4810 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | TAGTCGGAGA  | 4811 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TAGTGCCTG   | 4812 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | TAGTGCTAAG  | 4813 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | TAGTTAATAG  | 4814 | 1.0     | 0.0     | 0.0     |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | TATTAGCGTG  | 4843 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | TATTATACCT  | 4844 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | TATTCATTGA  | 4845 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TATTCCTCAA  | 4846 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | TATTCCTTAC  | 4847 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | TATTGGACTC  | 4848 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TATTAAATGG  | 4849 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | TATTACCACAT | 4850 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | TATTATTAC   | 4851 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | TATTATTCC   | 4852 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | TATTCTTAT   | 4853 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | TATTCTTGT   | 4854 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | TATTGGCAC   | 4855 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TCAAAAAGTC  | 4856 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | TCAAAGGTGC  | 4857 | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TCAAATATGA  | 4858 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TCAAGAAATG  | 4859 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | TCAAGGCATA  | 4860 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TCAAGTACTC  | 4861 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TCAAGTTGGG  | 4862 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TCAATATCAC  | 4863 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | TCAATTACAT  | 4864 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TCACAGAATC  | 4865 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 0 | TCACCAGAAG  | 4866 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | TCACCCACAC  | 4867 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TCAGAGTCAA  | 4868 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TCAGCATTCT  | 4869 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCAGCCAAGA  | 4870 | #DIV/0! | 1.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 2 | 0 | 0 | TCAGCTCAAG | 4871 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCAGTTTCTA | 4872 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TCATATTTCC | 4873 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | TCATCATCAG | 4874 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TCATTGAACG | 4875 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | TCATTGATTC | 4876 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | TCATTATGA  | 4877 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TCCAAAATCA | 4878 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | TCCAAATTAC | 4879 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | TCCAGACACA | 4880 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | TCCACTCCTT | 4881 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCATATATA | 4882 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCATCTGTA | 4883 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TCCCAATTAA | 4884 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | TCCCCGGTAC | 4885 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCCCGTCAT | 4886 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCCCGTCCA | 4887 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCCTACGCC | 4888 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCCTGTACA | 4889 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TCCCTTATTA | 4890 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TCCGAGCTGC | 4891 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TCCGTTCACT | 4892 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TCCTAAGATG | 4893 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCTCAATTA | 4894 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TCCTCGTACA | 4895 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCCTCTCGTT | 4896 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TCCTCTTTTC | 4897 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | TCCTTCCAGG | 4898 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |   |            |      |         |         |         |
|---|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 2 | 0 | 0 | TCCTGAATG  | 4899 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 1 | TCCTTGAAG  | 4900 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 1 | TCCTTGCTG  | 4901 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | TCGAACCTCT | 4902 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 1 | 1 | TCGAACCTTT | 4903 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 0 | 2 | 2 | TCGAAGTCGT | 4904 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | TCGACAACCC | 4905 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 1 | 1 | 1 | TCGACTGGAA | 4906 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 0 | 0 | TCGAGTCGAA | 4907 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 1 | TCGATTATT  | 4908 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | TCGCCAGAAG | 4909 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | 0 | TCGCCAGTCT | 4910 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | 0 | TCGCGCAATC | 4911 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | 1 | TCGCTGTTTT | 4912 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | TCGCTTCCAG | 4913 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 1 | 1 | TCGGGGAGAG | 4914 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 1 | 0 | 0 | TCGGTCAAAT | 4915 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 0 | 0 | TCGGTCTTAT | 4916 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 1 | 1 | TCGGTGGACC | 4917 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 1 | 1 | 1 | TCGTCAGAGA | 4918 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 1 | TCGCTGTTC  | 4919 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | TCGTGATTAC | 4920 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | TCGTGGGAGC | 4921 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | 2 | TCGTTACATT | 4922 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | TCTACGTTCC | 4923 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 1 | 1 | 1 | TCTAGCTCTT | 4924 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | 0 | TCTCAAAAAA | 4925 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 1 | 1 | TCTCCAGTTG | 4926 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | TCTCCGGAAG | 4927 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TCTCCGTACA | 4928 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TCTCGGTAA  | 4929 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | TCTGTATTGG | 4930 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | TCTGAATATA | 4931 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TCTGACTTAG | 4932 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TCTGCGTCCG | 4933 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 2 | TCTGGTTTA  | 4934 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | TCTGTACAAT | 4935 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TCTGTTAGAA | 4936 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | TCTTCAGACA | 4937 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TCTTCAGCTG | 4938 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | TCTTCCAACG | 4939 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | TCTTCCAAGA | 4940 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 1 | TCTTGGATAA | 4941 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 1 | TCTTCTGCGG | 4942 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TCTTTTACA  | 4943 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TGAAAGCTTC | 4944 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TGAAATTCTA | 4945 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TGAACTATT  | 4946 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 1 | TGAAGAAAAT | 4947 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | TGAATCTTT  | 4948 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | TGAGGGCTTA | 4949 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TGATGAGAAG | 4950 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TGATTAATAT | 4951 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | TGATTGCACA | 4952 | 0.0     | #DIV/0! | 0.0     |
| 0 | 2 | 0 | 0 | TGATTATCC  | 4953 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TGATTGTAT  | 4954 | 0.0     | #DIV/0! | 1.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 1 | 1 | TGCAATCGGC  | 4955 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGCAGAAAGG  | 4956 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | TGCAGCGAGT  | 4957 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | TGCAGGTGCC  | 4958 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TGCAGGTGTC  | 4959 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | TGCAGTGGAA  | 4960 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | TGCATCAAAA  | 4961 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TGCCAGGAAA  | 4962 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | 1 | TGCCCTCCGT  | 4963 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | 2 | TGCGCAAGTC  | 4964 | 0.0     | #DIV/0! | 1.0     |
| 0 | 0 | 2 | 0 | TGCTAAACGC  | 4965 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | TGCTGTTACA  | 4966 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | TGGACAATGT  | 4967 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | TGGACATCCT  | 4968 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | TGGACATCTA  | 4969 | #DIV/0! | 0.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | TGGACGAATA  | 4970 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 1 | TGGATACTCA  | 4971 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TGGCGGGGCA  | 4972 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 0 | TGGGACACTA  | 4973 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 2 | TGGGAGAAAGC | 4974 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 2 | TGGGTGTAGA  | 4975 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 2 | 2 | TGGTAACAGA  | 4976 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | 0 | TGGTAATTAT  | 4977 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 2 | TGGTCAGTAT  | 4978 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 2 | TGGTCCCTCCC | 4979 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 1 | TGGTCGGAGT  | 4980 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TGGTCTGCT   | 4981 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TGGTTATT    | 4982 | #DIV/0! | 1.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 1 | 1 | 0 | TGTAAAAAA  | 4983 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | TGTAAACGCT | 4984 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | 1 | TGTAATTAT  | 4985 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TGTAATTGG  | 4986 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TGTACGTGGT | 4987 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGTAGATTAT | 4988 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | 0 | TGTAGCATT  | 4989 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 1 | 1 | TGTATCAATA | 4990 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TGTATCCAAC | 4991 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGTATTTTG  | 4992 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TGTCAGAAAT | 4993 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TGTCCTCCTC | 4994 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGTCCTTCTC | 4995 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | TGTCTCGTGA | 4996 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TGTGGCTTGT | 4997 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 2 | 0 | TGTGTTAACG | 4998 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 2 | 0 | 0 | TGTTAAACCT | 4999 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TGTTCAAATA | 5000 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TGTTTATAAG | 5001 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TGTTTTAGCA | 5002 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TGTTTTCATT | 5003 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TGTTTTTAAA | 5004 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | TGTTTTTCAC | 5005 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TTAAAGGTGC | 5006 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TTAAATATAT | 5007 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | 1 | TTAAATGTTT | 5008 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | 1 | TTAATCGAAG | 5009 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TTAATGAAGC | 5010 | 1.0     | 0.0     | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 2 | 0 | TTAATGCCTG  | 5011 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | TTAATGTTAT  | 5012 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | TTAATGTTTT  | 5013 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | TTACAGAAGC  | 5014 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | TTACAGCTCA  | 5015 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | TTACCGATTT  | 5016 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | TTACGATCAT  | 5017 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | TTACTCAATT  | 5018 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | TTACTTCTTT  | 5019 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | TTAGATGCAA  | 5020 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | TTAGGGTTGG  | 5021 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | TTAGTCCAAA  | 5022 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | TTAGTGTCTA  | 5023 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | TTATGATAGG  | 5024 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | TTATGCTTAT  | 5025 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | TTATGGATGC  | 5026 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | TTATTATGGG  | 5027 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | TTATTCTGGC  | 5028 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | TTATTGACGC  | 5029 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | TTATTTCAAA  | 5030 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | TTATTTTTTT  | 5031 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | TTCAACTAAT  | 5032 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | TTCACAAATTG | 5033 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | TTCACCCGAA  | 5034 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | TTCACCTGTC  | 5035 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | TTCAGCCAAT  | 5036 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 0 | TTCAGTGTAA  | 5037 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | TTCATCAACA  | 5038 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 2 | TTCATCGCCT  | 5039 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 2 | TTCCAATGGG  | 5040 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 1 | TTCCACGGAC  | 5041 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TTCCCGTACA  | 5042 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 0 | 0 | 2 | TTCTATTAA   | 5043 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 1 | TTCCTTAGCT  | 5044 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | 0 | TTCCTTGTTT  | 5045 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 1 | TTGCACATAT  | 5046 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TTGCCGCTC   | 5047 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | TTGGGGTCAG  | 5048 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | 1 | TTGTCACCTT  | 5049 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | TTGGTTGCGT  | 5050 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | TTCTAATATT  | 5051 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 2 | TTCTCAAGTC  | 5052 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | TTCTGCATAT  | 5053 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | 0 | TTCTTGTTAC  | 5054 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | 0 | TTCTTTAATG  | 5055 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TTGAAAGATT  | 5056 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 1 | 1 | 1 | TTGAAATAAG  | 5057 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | TTGAACAGCT  | 5058 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 0 | 1 | TTGATAATGA  | 5059 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | TTGATCAACA  | 5060 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 1 | TTGATGAAAG  | 5061 | 0.0     | #DIV/0! | 1.0     |
| 1 | 1 | 0 | 0 | TTGATTCAAA  | 5062 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | 0 | TTGATTGACC  | 5063 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 1 | TTGCAAGGTG  | 5064 | 0.0     | #DIV/0! | 1.0     |
| 0 | 2 | 0 | 0 | TTGCACCTTCT | 5065 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TTGCCAGCCT  | 5066 | 1.0     | 0.0     | 0.0     |



Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 1 | TTTTCAATACC | 5095 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | TTTCAATTGC  | 5096 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | TTTCATTCC   | 5097 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 2 | 0 | TTTCCAGAAT  | 5098 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | TTTCCATTCA  | 5099 | 1.0     | 0.0     | 0.0     |
| 2 | 0 | 0 | TTTCCCAAGA  | 5100 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | TTTCTTCAAC  | 5101 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | TTTGAAAGTA  | 5102 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 0 | 1 | TTTGAGCGCA  | 5103 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | TTTGCAATCC  | 5104 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | TTTGCCATCG  | 5105 | 1.0     | 0.0     | 0.0     |
| 0 | 1 | 1 | TTTGCCTAAA  | 5106 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 0 | TTTGCTTGGT  | 5107 | 1.0     | 0.0     | 0.0     |
| 0 | 2 | 0 | TTTGGATAGT  | 5108 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 2 | TTTGGTCGTA  | 5109 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 1 | TTTGGTCTTG  | 5110 | 0.0     | #DIV/0! | 1.0     |
| 2 | 0 | 0 | TTTGGTTTCA  | 5111 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 1 | TTTGGTTTCG  | 5112 | 0.0     | #DIV/0! | 1.0     |
| 1 | 0 | 1 | TTTAAATA    | 5113 | 0.0     | #DIV/0! | 1.0     |
| 0 | 1 | 1 | TTTAAAGATT  | 5114 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | TTTATATATA  | 5115 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | TTTATATATT  | 5116 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | TTTCAAATT   | 5117 | #DIV/0! | #DIV/0! | #DIV/0! |
| 2 | 0 | 0 | TTTCCAAAA   | 5118 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | TTTCCAATC   | 5119 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | TTTCCCTCTT  | 5120 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | TTTTCGACCA  | 5121 | #DIV/0! | 1.0     | #DIV/0! |
| 0 | 2 | 0 | TTTCTTCT    | 5122 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 2 | 0 | TTTTGATTTT | 5123 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTGGGACT | 5124 | #DIV/0! | 1.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | TTTTTAAAA  | 5125 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 2 | 0 | TTTTTAAGCA | 5126 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | TTTTTAATAC | 5127 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | TTTTTAATAG | 5128 | 1.0     | 0.0     | 0.0     |
| 1 | 1 | 1 | 0 | TTTTTATAAT | 5129 | 1.0     | 0.0     | 0.0     |
| 0 | 0 | 1 | 1 | TTTTTCCCTT | 5130 | #DIV/0! | 1.0     | #DIV/0! |
| 2 | 0 | 0 | 0 | TTTTTCTATT | 5131 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 2 | 0 | TTTTTCTTAA | 5132 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 1 | 0 | TTTTTTTGA  | 5133 | 1.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | 0 | AAAAAAAAG  | 5134 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAAAAAAAT  | 5135 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAAAAAATC  | 5136 | #DIV/0! | 0.0     | 0.0     |
| 0 | 0 | 0 | 1 | AAAAAACTC  | 5137 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAAAGAA  | 5138 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAAAGCG  | 5139 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAAATTG  | 5140 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAACAAA  | 5141 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAACGAT  | 5142 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAAGAGA  | 5143 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAAAAGGTC  | 5144 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAATAAA  | 5145 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAAAATAAT  | 5146 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAAATCCT  | 5147 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAAAATCTG  | 5148 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAAATGCA  | 5149 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAAAAATTC  | 5150 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | AAAAATTGA  | 5151 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAAAACATCT | 5152 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAAACCACT | 5153 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAAACCCAG | 5154 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAAACCCAT | 5155 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAAACTATT | 5156 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAAAACTCAA | 5157 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAAAACTCAT | 5158 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAAAACTTTT | 5159 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AAAAAGAAAA | 5160 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAAAGAGAC | 5161 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAAAAGAGCA | 5162 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAAAGAGGG | 5163 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAAAAGCAAG | 5164 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AAAAAGCAAT | 5165 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAAAGGCGA | 5166 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAAAGTAGC | 5167 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAAAGTCGC | 5168 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAAAATACGA | 5169 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAAATCATC | 5170 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAAAATCCCC | 5171 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AAAAATGGGA | 5172 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAAATTCA  | 5173 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAAATTCC  | 5174 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAAAATTTGT | 5175 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAACAACAA  | 5176 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAACAAGCC  | 5177 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAACAGTGA  | 5178 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | AAACATATC  | 5179 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAACCCCAAT | 5180 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAGCCCTT  | 5181 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAAGCTTTG  | 5182 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAGCGGTA  | 5183 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAACTATTC  | 5184 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAACTTTGGT | 5185 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAACTTTGC  | 5186 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAAGACCTA  | 5187 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGATCTG  | 5188 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGCACCC  | 5189 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAAGCGATG  | 5190 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGCGCTA  | 5191 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAGCGGGG  | 5192 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAAGCTACA  | 5193 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAAGGATAT  | 5194 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGGCACG  | 5195 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGGCCGT  | 5196 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGGGGAA  | 5197 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGGTACA  | 5198 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGGTTCAT | 5199 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGTACCT  | 5200 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGTCACA  | 5201 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAGTCCAA  | 5202 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAAGTGGTG  | 5203 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAAGTTTGA  | 5204 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATAAACCC | 5205 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAATAAATA  | 5206 | #DIV/0! | 0.0     | #DIV/0! |





Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | AAACACCCAC | 5235 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAACACCGAC | 5236 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAACAGAAGC | 5237 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAACAGAGCA | 5238 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAACATAAAA | 5239 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAACCAACTC | 5240 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAACCACTTA | 5241 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAACCATTCG | 5242 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAACCCGAAT | 5243 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAACCGAATT | 5244 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAACCGCCAT | 5245 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAACCGGCTG | 5246 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAACCGTCAT | 5247 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAACCTTGAG | 5248 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAACGAAACC | 5249 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAACGACGAC | 5250 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAACGATACC | 5251 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAACGATTAG | 5252 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAACGCAGAA | 5253 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAACGCCGCT | 5254 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAACGCCAAG | 5255 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAACGGGAGC | 5256 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAACGGGGTA | 5257 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAACGTAGGA | 5258 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAACTAAAC  | 5259 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAACTAACTC | 5260 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAACTAGGAA | 5261 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAACTATACA | 5262 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | AACTATCTCT | 5263 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACTCTGCC  | 5264 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTGAAA   | 5265 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACTGGGGT  | 5266 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTGTGCT  | 5267 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACTGTGA   | 5268 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACTTTATG  | 5269 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACTTTTT   | 5270 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAAGAAATTC | 5271 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAAGAACTGT | 5272 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAAGAACTTC | 5273 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAAGAAGAAC | 5274 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAAGAAGATA | 5275 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAAGAATATA | 5276 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGAATCTC | 5277 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAAGACAAA  | 5278 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAAGACAAAC | 5279 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAAGACAGGG | 5280 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGACCAGA | 5281 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGACCTAC | 5282 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAAGACGAAG | 5283 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAAGACGCGC | 5284 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAAGACGGAG | 5285 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGACGTAT | 5286 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAAGACTACT | 5287 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAAGACTCAA | 5288 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGAGATCA | 5289 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAAGAGCCCA | 5290 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | AAAGATAAAG | 5291 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAAGATTGCG | 5292 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGCACCAC | 5293 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAAGCATAAT | 5294 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAAGCCAGAA | 5295 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAAGCCAGAC | 5296 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAAGCCCCAA | 5297 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAAGCGATGA | 5298 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAAGCGGTAT | 5299 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGCTAAAG | 5300 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAAGCTAACC | 5301 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAAGCTAGCA | 5302 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAAGCTCCAG | 5303 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAAGCTGATG | 5304 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAAGCTTTTT | 5305 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAAGGAATTG | 5306 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAAGGAATTT | 5307 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAAGGAGTGA | 5308 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAAGGATACC | 5309 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAAGGCCAGA | 5310 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAAGGCCTGC | 5311 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAAGGCGAGG | 5312 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAAGGCGGGG | 5313 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AAAGGGCACA | 5314 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAAGGGGTGC | 5315 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAAGGTAAAG | 5316 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGGTCTCA | 5317 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAAGGTTTAA | 5318 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |     |         |
|---|---|---|---|-------------|------|---------|---------|-----|---------|
| 1 | 0 | 0 | 0 | AAAGTATCAC  | 5319 | 0.0     | #DIV/0! | 0.0 | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGTATGCC  | 5320 | #DIV/0! | 0.0     |     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAGTCAGAG  | 5321 | #DIV/0! |         |     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAGTCCCCA  | 5322 | #DIV/0! |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAAGTCGATA  | 5323 | 0.0     |         |     | 0.0     |
| 1 | 0 | 0 | 0 | AAAGTGCACG  | 5324 | 0.0     |         |     | 0.0     |
| 1 | 0 | 0 | 0 | AAAGTGC CGG | 5325 | 0.0     |         |     | 0.0     |
| 0 | 0 | 1 | 0 | AAAGTGCTTG  | 5326 | #DIV/0! |         |     | 0.0     |
| 1 | 0 | 0 | 0 | AAAGTGTCGC  | 5327 | 0.0     |         |     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAAGTTAGGT  | 5328 | 0.0     |         |     | 0.0     |
| 1 | 0 | 0 | 0 | AAAGTTTACC  | 5329 | #DIV/0! |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAAGTTTCTT  | 5330 | 0.0     |         |     | 0.0     |
| 1 | 0 | 0 | 0 | AAATAAATGA  | 5331 | #DIV/0! |         |     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAATAAATTC  | 5332 | 0.0     |         |     | 0.0     |
| 1 | 0 | 0 | 0 | AAATAACAAA  | 5333 | #DIV/0! |         |     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAATAAGTAA  | 5334 | 0.0     |         |     | 0.0     |
| 0 | 1 | 0 | 0 | AAATAAGTAT  | 5335 | #DIV/0! |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATAATAAA  | 5336 | 0.0     |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATAATAAC  | 5337 | #DIV/0! |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATAATATC  | 5338 | 0.0     |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATAATGTT  | 5339 | #DIV/0! |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATACCGTA  | 5340 | #DIV/0! |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATACGACT  | 5341 | 0.0     |         |     | 0.0     |
| 0 | 1 | 0 | 0 | AAATAGTGGT  | 5342 | #DIV/0! |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATATAAAT  | 5343 | 0.0     |         |     | 0.0     |
| 0 | 1 | 0 | 0 | AAATATATCT  | 5344 | #DIV/0! |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATATT CAT | 5345 | #DIV/0! |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATATTTT   | 5346 | 0.0     |         |     | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|---------|
| 0 | 1 | 0 | 0 | AAATCAACAC | 5347 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATCAAGAT | 5348 | 0.0     |         |         | 0.0     |
| 0 | 1 | 0 | 0 | AAATCATTAG | 5349 | #DIV/0! |         |         | #DIV/0! |
| 0 | 0 | 1 | 0 | AAATCATTAT | 5350 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATCATTTT | 5351 | #DIV/0! |         |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATCCTTCA | 5352 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATCGAAGG | 5353 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATCGAATC | 5354 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATCTTGAA | 5355 | #DIV/0! | #DIV/0! |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATGAATTC | 5356 | #DIV/0! | #DIV/0! |         | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATGACGAT | 5357 | 0.0     |         |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATGACTTT | 5358 | #DIV/0! | #DIV/0! |         | 0.0     |
| 0 | 0 | 1 | 1 | AAATGAGTGG | 5359 | #DIV/0! | #DIV/0! |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATGATAGC | 5360 | #DIV/0! |         |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATGATTAA | 5361 | #DIV/0! | 0.0     |         | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATGCTCGT | 5362 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATGGAATT | 5363 | 0.0     | #DIV/0! |         | 0.0     |
| 0 | 1 | 0 | 0 | AAATGGATGA | 5364 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATGTAGGA | 5365 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATGTATAA | 5366 | #DIV/0! | #DIV/0! |         | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATGTTACT | 5367 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATGTTATT | 5368 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATTAAGC  | 5369 | #DIV/0! | #DIV/0! |         | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATTAGATG | 5370 | #DIV/0! | #DIV/0! |         | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATTATCAA | 5371 | 0.0     |         |         | 0.0     |
| 0 | 1 | 0 | 0 | AAATTCATTT | 5372 | 0.0     | #DIV/0! |         | 0.0     |
| 0 | 1 | 0 | 0 | AAATTCACAA | 5373 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | AAATTCGAAA | 5374 | #DIV/0! | 0.0     |         | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | AAATTCGTCA  | 5375 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATTCCTA   | 5376 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATTGAAA   | 5377 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAATTGAGAA  | 5378 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAATTGGCG   | 5379 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAATTGGTGC  | 5380 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAATTGTTCC  | 5381 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATTTAGTT  | 5382 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAATTTATAC  | 5383 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATTTTATA  | 5384 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATTTTCGTT | 5385 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATTTCTCG  | 5386 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAATTTCTGC  | 5387 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATTTCTTC  | 5388 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAATTTGTGT  | 5389 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAATTTTACA  | 5390 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAATTTTTTT  | 5391 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AACAAAGGA   | 5392 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AACAAAGGG   | 5393 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAAAGACC  | 5394 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACAAAGGGA  | 5395 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AACAAATATA  | 5396 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAAATCAG  | 5397 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAACAAC   | 5398 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAACAAGC  | 5399 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAACCTT   | 5400 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAAGCCTT  | 5401 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACAAGCGGT  | 5402 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | AACAAGGTGG | 5403 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AACAAGTACC | 5404 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AACAAGTCCA | 5405 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAATATCT | 5406 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAATCAAA | 5407 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AACAATCAAT | 5408 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAATCCGT | 5409 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACACAAAAT | 5410 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACACAAAGC | 5411 | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AACACAAGCC | 5412 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AACACACCTT | 5413 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AACACATCAA | 5414 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AACACCACTC | 5415 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACACCATCA | 5416 | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 0 | 0 | AACACCCCTT | 5417 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACACCGCTT | 5418 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AACACGAAGA | 5419 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACACGACAA | 5420 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACACGATGG | 5421 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AACACGGAGT | 5422 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACACTAGGC | 5423 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACACTTTAA | 5424 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AACAGAAATT | 5425 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACAGAGATG | 5426 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AACAGATCAG | 5427 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AACAGCAGCC | 5428 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAGGCTCA | 5429 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AACAGTACGT | 5430 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | AACAGTTTCA  | 5431 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AACAGTTTGG  | 5432 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AACATAATAA  | 5433 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AACATAATAT  | 5434 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACATACCAG  | 5435 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AACATATAGC  | 5436 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AACATATGCA  | 5437 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AACATCAAGA  | 5438 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AACATCAGTG  | 5439 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACATCCAAT  | 5440 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACATTATTT  | 5441 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AACATTCAAT  | 5442 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACATTTACC  | 5443 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AACATTTTTT  | 5444 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AACCAAACCT  | 5445 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AACCAAACCTG | 5446 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AACCAAAGCT  | 5447 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACCAAGGCG  | 5448 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AACCAATTTG  | 5449 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AACCACTCAA  | 5450 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AACCAAGACCA | 5451 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACCAAGCGAA | 5452 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AACCATATGA  | 5453 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AACCCAGTTG  | 5454 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AACCCAGTTT  | 5455 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AACCCGGACA  | 5456 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AACCCCTCCGT | 5457 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AACCCCTTCCA | 5458 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | AACGGGAAAA | 5459 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACCTACACA | 5460 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACCTAGAAA | 5461 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACCTATTGG | 5462 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACCTCCAGT | 5463 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACCTCCTCT | 5464 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACCTGTTGT | 5465 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACCTTGACC | 5466 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACCTTGGGT | 5467 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACCTTTTGA | 5468 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AACGAAAAAA | 5469 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACGAAAAGA | 5470 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACGAAAGTA | 5471 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACGAACAGT | 5472 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACGAATCGT | 5473 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACGAATTTT | 5474 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACGACAGAG | 5475 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACGACCAGG | 5476 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACGACCTGA | 5477 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACGATACGA | 5478 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACGATCCTT | 5479 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AACGCATATA | 5480 | #DIV/0! | 0.0     | 0.0     |
| 0 | 0 | 1 | AACGCATTTC | 5481 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACGCTATGA | 5482 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AACGCTTAAA | 5483 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACGCTTCTC | 5484 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AACGCTTTTA | 5485 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACGGACCAG | 5486 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 1 | 0 | AACGGATAGA  | 5488 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACGGCAATT  | 5489 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AACGGCCGAA  | 5490 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACGGTCGTG  | 5491 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACGTCAATA  | 5492 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACGTCACCA  | 5493 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACGTCGAGC  | 5494 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACGTCGTGA  | 5495 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACGTGTCGT  | 5496 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACGTTCCAA  | 5497 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACGTTTCGA  | 5498 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACTAACTC   | 5499 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AACTAACTT   | 5500 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACTAAATAT  | 5501 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AACTAAGCCC  | 5502 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACTACATTC  | 5503 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACTACCGTC  | 5504 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTACCGTT  | 5505 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AACTACTTCG  | 5506 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACTAGACTG  | 5507 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTATACCA  | 5508 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACTATTITAA | 5509 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AACTCAGATG  | 5510 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACTCGGTAT  | 5511 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACTCTCAAG  | 5512 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACTCTCTGT  | 5513 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACTCTCTTA  | 5514 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | AACTCTGACT  | 5515 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACTGAAAGA  | 5516 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AACTGAATGT  | 5517 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACTGACCCG  | 5518 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACTGACCGA  | 5519 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACTGAGCAG  | 5520 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACTGAGGTC  | 5521 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACTGATTAT  | 5522 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACTGCCITT  | 5523 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AACTGGAAAA  | 5524 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACTGGCCAT  | 5525 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACTGGGGCT  | 5526 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AACTGTAGTC  | 5527 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACTGTGCTT  | 5528 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTTAACCT  | 5529 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACTTAGTGT  | 5530 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTTCAAGA  | 5531 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AACTTCGAAT  | 5532 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AACTTCTGAA  | 5533 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AACTTCTTGT  | 5534 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACTTGCCTC  | 5535 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTTGTGGA  | 5536 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACTTTACTA  | 5537 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AACTTTCAAA  | 5538 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AACTTTCTCG  | 5539 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AACTTTGGAG  | 5540 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AACTTTTGTA  | 5541 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AACTTTTGTTA | 5542 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | AACITTTGCG  | 5543 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AACITTTTCT  | 5544 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAGAAAAAAA  | 5545 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAGAAAAAAC  | 5546 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAGAAAAGTT  | 5547 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAGAAACGCA  | 5548 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAGAAACTTT  | 5549 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAGAAATTAT  | 5550 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAGAAATTTC  | 5551 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAGAACAAAG  | 5552 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAGAACTAAA  | 5553 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAGAACTGGA  | 5554 | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAGAAACACG  | 5555 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAGAAACCTT  | 5556 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AAGAAACCAAC | 5557 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAGAAACAGT  | 5558 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAGAAAGCCAA | 5559 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAGAAAGCCAT | 5560 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAGAAAGCCGG | 5561 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AAGAAAGCCTT | 5562 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AAGAAAGCGAC | 5563 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AAGAAAGTACA | 5564 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AAGAAAGTCCC | 5565 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAGAAAGTTTG | 5566 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAGAAATAAT  | 5567 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AAGAAATAGGC | 5568 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AAGAAATGTGG | 5569 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AAGACAAAAA  | 5570 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | AAGACAAACT | 5571 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAGACAGAGC | 5572 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGACATACC | 5573 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGACCAATT | 5574 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGACGAAAA | 5575 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGACGATCG | 5576 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGACGATCT | 5577 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGACTCAAC | 5578 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGACTCTAT | 5579 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGACTGTGA | 5580 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGAGAAAAA | 5581 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGAGAAGGC | 5582 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGAGAAGGT | 5583 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGAGACAAC | 5584 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAGAGACCAG | 5585 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGAGATGAT | 5586 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGAGCAGAA | 5587 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGAGCTGGT | 5588 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGAGGAAAG | 5589 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGAGTGCTG | 5590 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGATATCAG | 5591 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGATCACCG | 5592 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGATCAGAA | 5593 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGATCCAAA | 5594 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGATGACAG | 5595 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGATGCTTT | 5596 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGATGGCCA | 5597 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGATTGGGT | 5598 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | 0 | AAGATTTTAC | 5599 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGATTTTGG | 5600 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGCAAATAG | 5601 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAGCAACTAA | 5602 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGCACATTA | 5603 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCACCTGC | 5604 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCACGTCA | 5605 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCAGCTCA | 5606 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCAGGTGC | 5607 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCATAACA | 5608 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGCCAGCAA | 5609 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAGCCATCAC | 5610 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGCCATTTT | 5611 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCCCCAAA | 5612 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGCCCATTT | 5613 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAGCCGGTGC | 5614 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCCTCCTT | 5615 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGCGAATTT | 5616 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGCGACTAA | 5617 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAGCGGTTGC | 5618 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGCTAGATG | 5619 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGCTATGAG | 5620 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAGCTCCGTC | 5621 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGCTGAACA | 5622 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGCTGATGT | 5623 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAGCTGCTCG | 5624 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGCTGGAAT | 5625 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGCTTTGTC | 5626 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | AAGCTTTTGG | 5627 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGGAACATA | 5628 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGGAAGATG | 5629 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGAATAAG | 5630 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGAATCAG | 5631 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 0 | AAGGACAAAG | 5632 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 1 | AAGGACCATC | 5633 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 0 | AAGGACCTAA | 5634 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAGGACGACG | 5635 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGGACTACT | 5636 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGGACTGAG | 5637 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGAGAAGT | 5638 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGAGCCAG | 5639 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGAGGCC  | 5640 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGAGGGCT | 5641 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGGAGTCTG | 5642 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGAGTGCC | 5643 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGATAATG | 5644 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAGGATGGTA | 5645 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGCAAATT | 5646 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AAGGCAAGAT | 5647 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGGCCAAGA | 5648 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGGCCAGCG | 5649 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGCCAGGG | 5650 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGCCGAGC | 5651 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGCTATTT | 5652 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGGCTTTTT | 5653 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AAGGGCCAAT | 5654 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | AAGGGGTCAG | 5655 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAGGGGTTGG | 5656 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGGTATCA | 5657 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGGGTATCG | 5658 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGTACGAT | 5659 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGGTATGGA | 5660 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGGTCAAGC | 5661 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGGTCAAGG | 5662 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGGTACAG  | 5663 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGGTCGAGA | 5664 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAGGTCCTCA | 5665 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGTGACAA | 5666 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGGTGTCAA | 5667 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGGTGTTTT | 5668 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGGTTCCCG | 5669 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGGTTGATC | 5670 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AAGGTTGCTC | 5671 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGTAAATAG | 5672 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAGTAACTGT | 5673 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGTACGTTG | 5674 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGTATGACG | 5675 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGTATGCCC | 5676 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGTATGCTC | 5677 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGTCAAAAA | 5678 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGTCATAGC | 5679 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGTCGAATG | 5680 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGTCTACGG | 5681 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AAGTCTCTAC | 5682 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | 0 | AAGTCTGAGC  | 5683 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGTCTGGTG  | 5684 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGTGAAC TC | 5685 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAGTGAGTCA  | 5686 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGTGCAAAG  | 5687 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGTGCCTGT  | 5688 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGTGGGCCA  | 5689 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGTG TAGCT | 5690 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGTGTGATA  | 5691 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGTGTGTTT  | 5692 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGTGTACC   | 5693 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGTTAAAA   | 5694 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AAGTTAGATA  | 5695 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGTTATGAG  | 5696 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | AAGTTCTCGC  | 5697 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGTTGATAT  | 5698 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGTTGCTAT  | 5699 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AAGTTGGGAA  | 5700 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AAGTTTAATT  | 5701 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AAGTTTATGG  | 5702 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AAGTTTCAGC  | 5703 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AATAAAAAGAA | 5704 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AATAAAAAGAG | 5705 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AATAAAAATGA | 5706 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AATAAAAATTA | 5707 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AATAAACCCCT | 5708 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AATAAAGAAT  | 5709 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | AATAAAGTAC  | 5710 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | AATAAATACC | 5711 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATAACAAAC | 5712 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATAACAGTT | 5713 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATAACCTTA | 5714 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATAAGAGCA | 5715 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATAAGCCTT | 5716 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATAATAAAA | 5717 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATAATTAGC | 5718 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATACAAATA | 5719 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATACAAGAT | 5720 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATACAAGGT | 5721 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATACCATAT | 5722 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATACGTTTA | 5723 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATACTATCA | 5724 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATAGAAAGT | 5725 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATAGACCAG | 5726 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATAGAGATA | 5727 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATAGCCGGC | 5728 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATAGCCTTG | 5729 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATAGCTTTT | 5730 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATAGTCAAC | 5731 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATAGTGAAG | 5732 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATATAAATT | 5733 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATATCAAGC | 5734 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATATCCATA | 5735 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATATGCTGT | 5736 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATATTACAT | 5737 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATATTCAAA | 5738 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | AATATTCGGG  | 5739 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATATTCTAT  | 5740 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATATTCTCA  | 5741 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATCAAAAC   | 5742 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATCAAAATT  | 5743 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATCAACAAC  | 5744 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATCAAGCAT  | 5745 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATCACCCCT  | 5746 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATCACTGGT  | 5747 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATCAGTTTT  | 5748 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATCATAACA  | 5749 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATCATAACGA | 5750 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATCATCCGT  | 5751 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATCCAAAAT  | 5752 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATCCAAACC  | 5753 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATCCAAACG  | 5754 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATCCAATTG  | 5755 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATCCAGGTT  | 5756 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATCCAGTCG  | 5757 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATCCAGTGA  | 5758 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATCCAGTGG  | 5759 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATCCAGTTA  | 5760 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATCCGCAAA  | 5761 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATCCTGCTT  | 5762 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATCCTGTCT  | 5763 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATCGAAATA  | 5764 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATCGATGAC  | 5765 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATCGTCACA  | 5766 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | AATCTAAATA  | 5767 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATCTAGCCA  | 5768 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATCTATACG  | 5769 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATCTATTTA  | 5770 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATCTCCAGT  | 5771 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATCTCTTCC  | 5772 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATCTGGATC  | 5773 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATCTTATGG  | 5774 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATCTTCGAC  | 5775 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATCTTGATC  | 5776 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATCTTTTAC  | 5777 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATGAAATGC  | 5778 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATGAACCCA  | 5779 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATGAAGAGC  | 5780 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATGAAGTGG  | 5781 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATGAATTGC  | 5782 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATGAATTTG  | 5783 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATGACGAAT  | 5784 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATGACGACA  | 5785 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATGACGCAA  | 5786 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATGACGCTC  | 5787 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATGACTATC  | 5788 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATGACTGTA  | 5789 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATGAGCAGC  | 5790 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATGAGTAAG  | 5791 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATGATACCG  | 5792 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATGATCAAT  | 5793 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATGATTCAAT | 5794 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | AATGATTTT  | 5795 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AATGCATTT  | 5796 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AATGCCGAAG | 5797 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AATCGCGCAA | 5798 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | AATGGAAAC  | 5799 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AATGGACAGC | 5800 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AATGGAGAAC | 5801 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AATGGCCTTG | 5802 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AATGGCGCAC | 5803 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AATGGCTAGC | 5804 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AATGGGAAGC | 5805 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AATGGTAATT | 5806 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AATGTAGATC | 5807 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AATGTAGGCC | 5808 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AATGTCAACA | 5809 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AATGTCACAT | 5810 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AATGTCTGAT | 5811 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AATGTGAAAT | 5812 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AATGTGCTAA | 5813 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | AATGTTACTC | 5814 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AATGTTCTGA | 5815 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AATGTTGTCA | 5816 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AATTAAGTGG | 5817 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AATTACATTG | 5818 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AATTACTAAG | 5819 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AATTACTTCG | 5820 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AATTAGATAG | 5821 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | AATTATGTGA | 5822 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | AATTATTAAA  | 5823 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTATTAAAT | 5824 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATTATTGAT  | 5825 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTATTAG   | 5826 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATTATTTT   | 5827 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATTCAACAA  | 5828 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATTCAACCT  | 5829 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATTCAAGCA  | 5830 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATTCAGTT   | 5831 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AATTCACAA   | 5832 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATTCCTGAG  | 5833 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATTCGAGCT  | 5834 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATCTTCGT   | 5835 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATCTTGCA   | 5836 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTGAAAT   | 5837 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATTGAGATC  | 5838 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTGAGGCA  | 5839 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATTGCAATA  | 5840 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AATTGGGCAG  | 5841 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AATTGGTCAC  | 5842 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATTGTACTT  | 5843 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATTGTGCGAT | 5844 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATTGTTAAG  | 5845 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTTACTGA  | 5846 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATTTAGTTC  | 5847 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATTTATTGA  | 5848 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTCAGAA   | 5849 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AATTCAGCA   | 5850 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | AATTCGAAT   | 5851 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATTCGTGA   | 5852 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATTCATC    | 5853 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AATTCGATC   | 5854 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATTCGCAT   | 5855 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATTCGTCA   | 5856 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATTCCTAT   | 5857 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATTCCTCC   | 5858 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AATTCGCC    | 5859 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTTTAA    | 5860 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AATTTTAA    | 5861 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AATTTTAGT   | 5862 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AATTTTCCA   | 5863 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ACAAAAGAG   | 5864 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ACAAAATTG   | 5865 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ACAAAACCCA  | 5866 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ACAAAAGATT  | 5867 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ACAAAATCAT  | 5868 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACAAAATTCC  | 5869 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACAAAATTCT  | 5870 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACAACTTTT   | 5871 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACAAAGACCT  | 5872 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ACAAACAAGGT | 5873 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACAACTACTCA | 5874 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACAACTCCCA  | 5875 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACAACTGGT   | 5876 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ACAACTCTT   | 5877 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ACAAAGATC   | 5878 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | ACAAGATTGG  | 5879 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ACAAGATTTT  | 5880 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACAAGCTATA  | 5881 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ACAAGTACCA  | 5882 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ACAAGTGTTT  | 5883 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACAAGTTTGA  | 5884 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACAATAAACA  | 5885 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACAATAACGC  | 5886 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACAATAGACC  | 5887 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACAATATCTG  | 5888 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACAATCGATC  | 5889 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACAATGACCG  | 5890 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACAATGCCCT  | 5891 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACAATGTTGA  | 5892 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACAATTAAAG  | 5893 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACAATTCITT  | 5894 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACACAAACIT  | 5895 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 1 | ACACACCAAA  | 5896 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ACACACCAGC  | 5897 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACACCAACAA  | 5898 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACACCAAGGC  | 5899 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACACCAGCAA  | 5900 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACACCAGCCT  | 5901 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACACCATTTGA | 5902 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACACCATTTT  | 5903 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACACCTTCCA  | 5904 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ACACGATGCC  | 5905 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ACACGCTTGT  | 5906 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | ACACGTTCTGA | 5907 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACACTAAATC  | 5908 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACACTATTC   | 5909 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACACTCACCA  | 5910 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACACTCCATC  | 5911 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACACTGGCGT  | 5912 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACACTTATAA  | 5913 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACACTTGCCT  | 5914 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACACTTTTGT  | 5915 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACACTTTTTT  | 5916 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACAGAAAGCC  | 5917 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACAGAAGCGA  | 5918 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACAGAAATTA  | 5919 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACAGACCAGG  | 5920 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACAGAGAAAA  | 5921 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACAGCAATT   | 5922 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACAGCCCTCT  | 5923 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACAGCTACCA  | 5924 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACAGGATGTC  | 5925 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACAGGCACCT  | 5926 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACAGGCCTGA  | 5927 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACAGGGGGCG  | 5928 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACAGGTACA   | 5929 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACAGTCCGAG  | 5930 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACAGTTGGGA  | 5931 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACATACTTTA  | 5932 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACATATGAAT  | 5933 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACATCAAAAA  | 5934 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |   |            |      |         |         |         |
|---|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | 0 | ACATCAAGCC | 5935 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | ACATCAGAAT | 5936 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 0 | ACATCATCGA | 5937 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATCATCTA | 5938 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATCATTGT | 5939 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATCCACCA | 5940 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | ACATCCCGGA | 5941 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 0 | ACATCCTCAA | 5942 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | ACATCGCCTG | 5943 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATCGTTTG | 5944 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATCTGGTA | 5945 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | ACATCTGGTC | 5946 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 0 | ACATTATTGG | 5947 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATTCCACA | 5948 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATTCTTTC | 5949 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | ACATTGACGA | 5950 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACATTGTGTA | 5951 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | ACATTCCAG  | 5952 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | ACATTCTCA  | 5953 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | ACATTTTAT  | 5954 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | ACCAAATGC  | 5955 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACCAAATTG  | 5956 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACCAAAGAA  | 5957 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | ACCAAATTGA | 5958 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | ACCAACACAT | 5959 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | ACCAAGATCT | 5960 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 0 | ACCAAGCAAA | 5961 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | ACCAAGGCTA | 5962 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | ACCAAGTTGA  | 5963 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCAATAACA  | 5964 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCAATACTC  | 5965 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACCAATCTGC  | 5966 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCAATTCCT  | 5967 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCACATGTC  | 5968 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACCACATCAA  | 5969 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCACCATTT  | 5970 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACCACCTCTT  | 5971 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCACCTGTC  | 5972 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCAGAACCA  | 5973 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCAGAAATGA | 5974 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ACCAGATCTT  | 5975 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCAGCCTCG  | 5976 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCAGGATTG  | 5977 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACCAGGTGTT  | 5978 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCATAGCGG  | 5979 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCATCGGTG  | 5980 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCATCGTGT  | 5981 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCATTAAAA  | 5982 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCATTAAAT  | 5983 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACCATTCAAG  | 5984 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCCAAGTGA  | 5985 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCCAGGAGT  | 5986 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCCATAGAT  | 5987 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCCCAAAGC  | 5988 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCCCAAATG  | 5989 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCCCAACCT  | 5990 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
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| 1 | 0 | 0 | 0 | ACCCCGTCAG | 5993 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCCGATGCT | 5994 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCCTACTGC | 5995 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACCCTATGTA | 5996 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCGAACCTA | 5997 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCGACGCTC | 5998 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACCGAGAGAT | 5999 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCGAGTCCG | 6000 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCGATACAC | 6001 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCGATGGTA | 6002 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCGCAAGAC | 6003 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACCGCAATCA | 6004 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 0 | 1 | ACCGCTAGTG | 6006 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCGCTCTGG | 6007 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ACCGCTTTCT | 6008 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCGGGCGCT | 6009 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCGGTGCC  | 6010 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCGTACTTT | 6011 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCGTAGCGT | 6012 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCGTCAAC  | 6013 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCGTCAAGT | 6014 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCGTCCCTC | 6015 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACCGTCAAG  | 6016 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ACCGTCGATT | 6017 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCGTGCGGT | 6018 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

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|---|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 1 | 1 | ACCTAAAGAA | 6020 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACCTACCTTC | 6021 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCTAGCATA | 6022 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCTATAAAA | 6023 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCTATTCAT | 6024 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACCTCAAAAA | 6025 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACCTCCAAGC | 6026 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACCTCCGTTT | 6027 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCTCGGCTT | 6028 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | ACCTGGATAA | 6030 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACCTGTTGCT | 6031 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACCTGTTGGT | 6032 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACCTTAAAAA | 6033 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCTTACATT | 6034 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCTTACGGG | 6035 | 0.0     | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACCTTCAGCA | 6036 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACCTTCATTG | 6037 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCTTGAAAA | 6038 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACCTTGAAAG | 6039 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACCTTGGGTT | 6040 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACCTTGGTCA | 6041 | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACCTTGCAC  | 6042 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACCTTTTCAT | 6043 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGAAAAATT | 6044 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGAAAGTGG | 6045 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACGAAGAAAT | 6046 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 1 | 0 | 0 | 0 | ACGAAGCTCA | 6049 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGAAGCTGG | 6050 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACGAAGGATT | 6051 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACGAAGTGAG | 6052 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGAAGTTGT | 6053 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGAATCACA | 6054 | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 0 | 0 | ACGAATGAGG | 6055 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACGAATGCTG | 6056 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACGAATTATA | 6057 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACGAATTGTT | 6058 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGACAATCT | 6059 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGACAGTAA | 6060 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACGACGATGA | 6061 | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 0 | 0 | ACGAGCTCCG | 6062 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGAGGAAA  | 6063 | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 0 | 0 | ACGAGGATAG | 6064 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGATAAATC | 6065 | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 0 | 0 | ACGATATCGT | 6066 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACGATGAAAG | 6067 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACGATGAAGG | 6068 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGATGCTTT | 6069 | #DIV/0! | 0.0     | 0.0     |
| 0 | 0 | 1 | 1 | ACGATTCGCC | 6070 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACGCAATGGA | 6071 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGCAGATTT | 6072 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGCATATTA | 6073 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGCATTGTC | 6074 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 0 | 1 | 0 | ACGCGAATCT | 6078 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACGCTCTTTT | 6079 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACGGAACAAA | 6080 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACGGAAGACT | 6081 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACGGAAGCCC | 6082 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ACGGACATAG | 6083 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACGGAGTTGA | 6084 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ACGGATATTA | 6085 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACGGCAAACT | 6086 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ACGGCAGAGA | 6087 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ACGGCAGCAA | 6088 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ACGGCCAACT | 6089 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ACGGCCTTAC | 6090 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ACGGCTCTCA | 6091 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ACGGGTCGCC | 6092 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ACGGGTTATG | 6093 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ACGGTAATCA | 6094 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ACGGTATATT | 6095 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ACGGTCAATA | 6096 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 1 | 0 | ACGTATTTCG | 6099 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ACGTCCCTTT | 6100 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ACGTCGCAGC | 6101 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ACGTCTCATA | 6102 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

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| 0 | 0 | 1 | 0 | ACGTGTGTAA  | 6105 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGTGTTAAT  | 6106 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACGTTATCAC  | 6107 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ACGTTCCGTT  | 6108 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACGTTCCCTCA | 6109 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACGTTCTTTT  | 6110 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGTTCTTGT  | 6111 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACGTTCTTTC  | 6112 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTAAACTA   | 6113 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ACTAAACCCC  | 6114 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ACTAAACTGG  | 6115 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTAAATCAA  | 6116 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTAAATCAC  | 6117 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTAAATGAC  | 6118 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTAACTTTG  | 6119 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTAAGATGA  | 6120 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTAAGGAGA  | 6121 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTAATTCAA  | 6122 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACTACAACAG  | 6123 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ACTACAATTT  | 6124 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | 0 | ACTACTGGTA  | 6127 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTAGAAATT  | 6128 | #DIV/0! | 0.0     | #DIV/0! |
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| 1 | 0 | 0 | 0 | ACTAGAATTG  | 6130 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 0 | 1 | 1 | ACTATCGAGG  | 6133 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTATGAATA  | 6134 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTATTATGA  | 6135 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTATTATGG  | 6136 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTCAATACT  | 6137 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACTCAGTTCA  | 6138 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | ACTCAGATTG  | 6140 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTCAGTTTC  | 6141 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTCCATTAA  | 6142 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACTCCATTGA  | 6143 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 1 | ACTCGAGTTG  | 6145 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTCGATTAC  | 6146 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTCGCATTT  | 6147 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTCGTCCCC  | 6148 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTCTAACTT  | 6149 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | ACTGAAACGA  | 6156 | #DIV/0! | 0.0     | #DIV/0! |
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Table 5, cont.

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|---|---|---|---|------------|------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | ACTGATAGAT | 6160 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTGATATAT | 6161 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGATGATG | 6162 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTGCACTAA | 6163 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTGCAGACA | 6164 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGCATTAG | 6165 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACTGCATTGG | 6166 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACTGCCTAAT | 6167 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACTGCCTTAC | 6168 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACTGCTAGAC | 6169 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTGCTATTG | 6170 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTGCTGCCT | 6171 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTGCTTCAA | 6172 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGGAAACC | 6173 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACTGGCTAAA | 6174 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGGGGCAG | 6175 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTGGTATTG | 6176 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTGGTCAAT | 6177 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTGGTTTGG | 6178 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGTACGTT | 6179 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACTGTACTCT | 6180 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGTCCATT | 6181 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTGTGCGTG | 6182 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGTGAAAC | 6183 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ACTGTGAAAT | 6184 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTGTGCTGA | 6185 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTGTGGGTT | 6186 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | ACTTAACAAT | 6188 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ACTTACAAAA | 6189 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTTACAACC | 6190 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ACTTACCCT  | 6191 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTACTCGT | 6192 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTAGTATT | 6193 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTAGTTTG | 6194 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTATGATT | 6195 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTATTTT  | 6196 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTCAAATG | 6197 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTCAACTA | 6198 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTTCAATTC | 6199 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTTCACGTT | 6200 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ACTTCAGAAA | 6201 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTCAGCAG | 6202 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTCAGCGT | 6203 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTTCATTAC | 6204 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTTCCACGT | 6205 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTTCCCGCA | 6206 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ACTTCCGGTG | 6207 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTCGTTCC | 6208 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ACTTCTGGAC | 6209 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ACTTCTTGAG | 6210 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTCTTGGT | 6211 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ACTTGAACGT | 6212 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTGACAAG | 6213 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTGACTGT | 6214 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

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|---|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | ACTTGGATCT  | 6217 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTGTGTAA  | 6218 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTTGTGTAT  | 6219 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ACTTTAAAGA  | 6220 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTTTAAATC  | 6221 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTTTAATAT  | 6222 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTTTATTTT  | 6223 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTTCTTCG  | 6224 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTTTGATTG  | 6225 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTTTGGCTA  | 6226 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTTTAATC  | 6227 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTTTAGAA  | 6228 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ACTTTTCAGT  | 6229 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ACTTTTGAAT  | 6230 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ACTTTTTTGG  | 6231 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ACTTTTTTAA  | 6232 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AGAAAAAAG   | 6233 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AGAAAAAAC   | 6234 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AGAAAAAAGA  | 6235 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AGAAAAAATG  | 6236 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AGAAAAACTG  | 6237 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AGAAAAATAG  | 6238 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AGAAAAATGT  | 6239 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AGAAAAACGAG | 6240 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AGAAAAAGATG | 6241 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AGAAAAAGTGT | 6242 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |   |            |      |         |         |         |
|---|---|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 0 | 1 | 1 | AGAAAGTAAG | 6245 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAAATGCTG | 6246 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | AGAAATGTGT | 6247 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAACAACT  | 6248 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | AGAACATCCA | 6249 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAACCTCAC | 6250 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAACCTTTC | 6251 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | AGAACTGGAC | 6252 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAACTTGAA | 6253 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | AGAACTTGAT | 6254 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | AGAAGAACGG | 6255 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | AGAAGAAGAG | 6256 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | AGAAGACAAG | 6257 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | AGAAGAGATA | 6258 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | AGAAGAGCAC | 6259 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | AGAAGAGGCG | 6260 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 0 | AGAAGAGGTG | 6261 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAAGATGGA | 6262 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAAGCACAA | 6263 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAAGCACCC | 6264 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | AGAAGCACTG | 6265 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | AGAAGCCAGA | 6266 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAAGCCAGT | 6267 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | AGAAGCCGTT | 6268 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | AGAAGGACCC | 6269 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | AGAAGGCATA | 6270 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 0 | 1 | AGAAGGGAAA  | 6272 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGAAGTCAAA  | 6273 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGAAGTGGGT  | 6274 | 0.0     | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AGAAGTGTAT  | 6275 | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AGAATAATGG  | 6276 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGAATACATT  | 6277 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGAATACCGT  | 6278 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGAATATGGT  | 6279 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AGAATCACGT  | 6280 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AGAATTAGTA  | 6281 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGAATTCAAA  | 6282 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGAATTCAGA  | 6283 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGAATTGCTC  | 6284 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGAATTGTTA  | 6285 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACAAACCC  | 6286 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGACAAACTT  | 6287 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGACAAATTG  | 6288 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AGACAAACCGA | 6289 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 0 | 1 | AGACAAATTGG | 6291 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGACACACTG  | 6292 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AGACACGAAG  | 6293 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AGACATACTG  | 6294 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGACCAAACT  | 6295 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGACCAAGCC  | 6296 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACCAATCC  | 6297 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACCAATCC  | 6298 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 1 | 0 | 0 | AGACCAGAAA  | 6300 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGACCATTCC  | 6301 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACCATTGA  | 6302 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACCATTGG  | 6303 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACCATTGT  | 6304 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACCCATTT  | 6305 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGACGACATT  | 6306 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AGACGATGTC  | 6307 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGACGCCCGC  | 6308 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 0 | 1 | AGACTGCCAC  | 6311 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGACTTAGTA  | 6312 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGAGAACAAAG | 6313 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGAGAA GTGG | 6314 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AGAGAA TACC | 6315 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AGAGAA TCGG | 6316 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGAGACAGAG  | 6317 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGAGACGGCA  | 6318 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGAGAGAA TG | 6319 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AGAGAGATCG  | 6320 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGAGAGCTAC  | 6321 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | AGAGATGAAT  | 6323 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AGAGCAGAA G | 6324 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AGAGCTATAA  | 6325 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGAGCTTGGG  | 6326 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

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| 1 | 0 | 0 | 0 | 0 | 0 | AGAGGAGCAC  | 6329 | 0.0     | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGAGGATACT  | 6330 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 1 | 0 | 0 | 0 | 0 | 0 | AGAGGCTGGA  | 6331 | 0.0     | #DIV/0! | #DIV/0! | 0.0 |
| 1 | 0 | 0 | 0 | 0 | 0 | AGAGGCTTTT  | 6332 | 0.0     | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGAGGGCCTA  | 6333 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGAGGGTGAT  | 6334 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 1 | 0 | 0 | 0 | 0 | 0 | AGAGGTGATC  | 6335 | 0.0     | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 1 | 0 | 0 | 0 | 0 | AGAGTAGCAA  | 6336 | #DIV/0! | 0.0     | #DIV/0! | 0.0 |
| 1 | 0 | 0 | 0 | 0 | 0 | AGAGTCTTGA  | 6337 | 0.0     | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGAGTGCAAG  | 6338 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGAGTGTTCA  | 6339 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 1 | 0 | 0 | 0 | 0 | AGATAAACTG  | 6340 | #DIV/0! | 0.0     | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGATAAATTC  | 6341 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGATAAGTTT  | 6342 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 1 | 0 | 0 | 0 | 0 | AGATAGCAAA  | 6343 | #DIV/0! | 0.0     | #DIV/0! | 0.0 |
| 0 | 1 | 0 | 0 | 0 | 0 | AGATAGCGAA  | 6344 | #DIV/0! | 0.0     | #DIV/0! | 0.0 |
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| 1 | 0 | 0 | 0 | 0 | 0 | AGATCAAAAA  | 6346 | 0.0     | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGATCCTCAT  | 6347 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 1 | 0 | 0 | 0 | 0 | AGATGAAACT  | 6348 | #DIV/0! | 0.0     | #DIV/0! | 0.0 |
| 1 | 0 | 0 | 0 | 0 | 0 | AGATGAATTT  | 6349 | 0.0     | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGATGACTTC  | 6350 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGATGATCGT  | 6351 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGATGATGAA  | 6352 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 0 | 0 | 1 | 0 | 0 | AGATGCAAAA  | 6353 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 |
| 0 | 1 | 0 | 0 | 0 | 0 | AGATGGACTT  | 6354 | #DIV/0! | 0.0     | #DIV/0! | 0.0 |

Table 5, cont.

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| 1 | 0 | 0 | AGATTAAGAA  | 6358 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 0 | 1 | AGATTGCCCA  | 6364 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGATTGGATG  | 6365 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGATTGTATT  | 6366 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGATTITGATG | 6367 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGATTTTTTT  | 6368 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGCAAAAAGA  | 6369 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCAAACTGC  | 6370 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGCAACCAGC  | 6371 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGCAACGAAG  | 6372 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGCAATAAAA  | 6373 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGCAATGGAA  | 6374 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AGCAATGTGG  | 6375 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGCACCATAG  | 6376 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGCACGGTGT  | 6377 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AGCACTGAAG  | 6378 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AGCACTGGTG  | 6379 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCAGATTGA  | 6380 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCAGCACAA  | 6381 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCAGCTCAG  | 6382 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 1 | 0 | 0 | AGCAGTGGCC  | 6386 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGCAGTTCAC  | 6387 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGCAGTTTCT  | 6388 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCATAAAAG  | 6389 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCATAAAGA  | 6390 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | AGCATTACCA  | 6393 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGCATTAGAT  | 6394 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AGCATTTGAT  | 6395 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCATTTGCC  | 6396 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCATTTTGG  | 6397 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCCAAAAC   | 6398 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCCAAACTG  | 6399 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | AGCCAAITCG  | 6400 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AGCCAGATCA  | 6401 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AGCCATCTGT  | 6402 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | AGCCATTAAAC | 6403 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AGCCATTGCT  | 6404 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGCCATTTTG  | 6405 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGCCCAAAC   | 6406 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | AGCCCAAGCTC | 6407 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGCCCGATTTC | 6408 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGCCCTCTTA  | 6409 | 0.0     | #DIV/0! | 0.0     |
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Table 5, cont.

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| 1 | 0 | 0 | 0 | AGCGGATGTT | 6417 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AGCGGATTGA | 6418 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AGCGGGTCTT | 6419 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AGCGGGTGCT | 6420 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AGCGGTGTTA | 6421 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | AGCGTATTAG | 6422 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AGCGTCAAAT | 6423 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AGCGTGACGT | 6424 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | AGCTAAACTG | 6426 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AGCTAAATAG | 6427 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AGCTAACATT | 6428 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AGCTAGAACG | 6429 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | AGCTAGGCAT | 6430 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AGCTATAAAC | 6431 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | 0 | AGCTCGGCAT | 6434 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | AGCTGAAAC  | 6435 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | AGCTGAACTA | 6436 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AGCTGAGATT | 6437 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AGCTGTGCTG | 6438 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
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| 0 | 1 | 0 | AGGAAACAAG | 6444 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | AGGAAAGAAC | 6445 | 0.0     | #DIV/0! | 0.0     |
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| 1 | 0 | 0 | AGGAACGGTT | 6447 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGGAACTTAA | 6448 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | AGGACAAATC | 6454 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | AGGACACATC | 6455 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | AGGACATTGG | 6456 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | AGGACCATCC | 6457 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGGACCGTCT | 6458 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 0 | 1 | AGGACTGTTA | 6462 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGGAGAACAA | 6463 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGGAGACGGT | 6464 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | AGGAGCCAGA | 6465 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | AGGAGCGGTT | 6466 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

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| 0 | 0 | 1  | 1  | AGGAGGCTAG | 6468 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0  | 0  | AGGAGTTCCA | 6469 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0  | 0  | AGGAGTTCTG | 6470 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0  | 0  | AGGAGTTTIT | 6471 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGATCTTAG | 6472 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0  | 0  | AGGATCTTGA | 6473 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0  | 0  | AGGATGAAGC | 6474 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0  | 0  | AGGCAAACCA | 6475 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1  | 1  | AGGCAAATGA | 6476 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0  | 0  | AGGCAGAAC  | 6477 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0  | 0  | AGGCAGGCCA | 6478 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1  | 1  | AGGCAGTCAG | 6479 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGCCAACTG | 6480 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0  | 0  | AGGCCATTGC | 6481 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1  | 1  | AGGCCATTTG | 6482 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGCCTGAAA | 6483 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGCTCTGCT | 6484 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGCTTGAGA | 6485 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0  | 0  | AGGCTTGAGG | 6486 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0  | 0  | AGGACATCG  | 6487 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0  | 0  | AGGATACCA  | 6488 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGATGCTG  | 6489 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0. | 0. | AGGCAGGAA  | 6490 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGCAGTTT  | 6491 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1  | 1  | AGGCCATAA  | 6493 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1  | 1  | AGGCCTTGGT | 6494 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

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| 0 | 0 | 1 | 1 | AGGGGGAAC  | 6498 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | AGGGTAGAAG | 6499 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | AGGGTTTATA | 6501 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AGGGTTTGAG | 6502 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 1 | AGGTGAAACG | 6507 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | AGGTGCCCAA | 6509 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | AGGTGTAAGA | 6510 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | AGGTTAAGAT | 6511 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AGGTATGTG  | 6512 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 1 | 0 | 0 | AGGTTTCGGT | 6516 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AGTAAAACG  | 6517 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 0 | 1 | 1 | AGTAACGATG | 6519 | #DIV/0! | #DIV/0! | #DIV/0! |
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Table 5, cont.

|   |   |   |   |            |      |         |         |         |
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| 1 | 0 | 0 | 0 | AGTAGCCAAC | 6526 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | AGTAGGTAA  | 6527 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | AGTATAGTGG | 6528 | 0.0     | #DIV/0! | 0.0     |
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Table 5, cont.

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| 0 | 0 | 1 | 0 | AGTTTACCTC | 6582 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 0 | ATAAAGAAAG | 6601 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAAAGAACG | 6602 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATAAGATTA  | 6603 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATAAAGTGGT | 6604 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAAATACCA | 6605 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATAAATCATT | 6606 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | ATAATCGCT  | 6607 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATAATCTAT  | 6608 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAATGATC  | 6609 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATAATGGAA  | 6610 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAACAACAG | 6611 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAACAGAGA | 6612 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATAACAGCAA | 6613 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATAACAGTCA | 6614 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATAACCAAAA | 6615 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATAACGACAG | 6616 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAACGTGAA | 6617 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAAGCAGGA | 6618 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAAGCCCAA | 6619 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATAAGCGCAT | 6620 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAAGCTATG | 6621 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATAAGTGATT | 6622 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATAAGTGCCA | 6623 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATAAGTGTTT | 6624 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATAAGTTAAC | 6625 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAAGTTTGA | 6626 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATAATAACTT | 6627 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAATAATTT | 6628 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAATATATT | 6629 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAATATCGA | 6630 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAATCGCCT | 6631 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATAATGAACA | 6632 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAATGAAC  | 6633 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATAATGGACT | 6634 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | 1 | ATAATGGCAC | 6635 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAATGGCGT | 6636 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAATGTACT | 6637 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATAATGTGGA | 6638 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATAATGTTGA | 6639 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAATTCGTC | 6640 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATAATTGGGG | 6641 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATACAAAAA  | 6642 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATACAAACTG | 6643 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATACAAGGTA | 6644 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATACAAGGTG | 6645 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACAAGTTT | 6646 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACACATAA | 6647 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACACTGGT | 6648 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATACAGATTA | 6649 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATACAGGATT | 6650 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACATAAAA | 6651 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACATTTAA | 6652 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATACATTCT  | 6653 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACCACTCC | 6654 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATACCTCTTC | 6655 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATACCTTTAG | 6656 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATACGATTAC | 6657 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATACGCCGCT | 6658 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATACGGGCCC | 6659 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACGTATT  | 6660 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACGTTTGT | 6661 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACTACCAA | 6662 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | 0 | ATAGTAGATA  | 6663 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATACTCCAAT  | 6664 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACTGAAAG  | 6665 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATACTGCTGC  | 6666 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATACTGGTGC  | 6667 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATACTTCGTC  | 6668 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACTTGGCT  | 6669 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATACITTTCTA | 6670 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATAGAACTG   | 6671 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAGAAAGAG  | 6672 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATAGAAATCC  | 6673 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAGAAGTGA  | 6674 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAGAAATGCA | 6675 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATAGACAGAG  | 6676 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAGAGACAA  | 6677 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATAGAGCCAT  | 6678 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAGAGCCGG  | 6679 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATAGAGTTAA  | 6680 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAGATTAA   | 6681 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAGATTAG   | 6682 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATAGCCGCTC  | 6683 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAGCGAACT  | 6684 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATAGCTCCAT  | 6685 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATAGGCTACA  | 6686 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATAGGCTCGA  | 6687 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATAGGTATCT  | 6688 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATAGGTTTGA  | 6689 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATAGTCGTGC  | 6690 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | ATAGTTAAGG  | 6691 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATAGTTCCCA  | 6692 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATAGTTGAAA  | 6693 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATAGTTTCTA  | 6694 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATATAAGTAC  | 6695 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATATACGACA  | 6696 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATATAGCGGC  | 6697 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATATAGGCCT  | 6698 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATATAGTGGT  | 6699 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATATAAAGG   | 6700 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATATAAGGT   | 6701 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATATAIGTCC  | 6702 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATATAITCCA  | 6703 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATATAITGGT  | 6704 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICAAGAA  | 6705 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATAICAAGCA  | 6706 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATATCACAAAT | 6707 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICAGCAG  | 6708 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICCATGG  | 6709 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICCGIAT  | 6710 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICGAAAA  | 6711 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICGATGG  | 6712 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICGTICAG | 6713 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATAICTAGTT  | 6714 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATAICTCATA  | 6715 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATAICTCTGT  | 6716 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATAICTGTTT  | 6717 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATAICTTTAA  | 6718 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | ATCAACGCTA | 6747 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATCAAGGTGC | 6748 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCAAGTTAC | 6749 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCAATATGC | 6750 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATCACCAAAA | 6751 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATCACCCACG | 6752 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCACCTGCC | 6753 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATCACGCCCT | 6754 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCACGCTCC | 6755 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCACGGGTG | 6756 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCACTCCTG | 6757 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCACTGGCG | 6758 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCACTGGGA | 6759 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCAGAAATA | 6760 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCAGGTGG  | 6761 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCAGTAGTT | 6762 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCAGTGTTA | 6763 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATCAGTTTCT | 6764 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATCATAAGAT | 6765 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATCATCAAAG | 6766 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCATTTAGA | 6767 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCATTTTCC | 6768 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCCAAGGTG | 6769 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATCCAATTAT | 6770 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATCCACTGGT | 6771 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCCAGGTGC | 6772 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCCATATTA | 6773 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATCCATCAT  | 6774 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | ATCCATTCT  | 6775 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATCCAGCTC  | 6776 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATCCAGCTT  | 6777 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATCCCATAG  | 6778 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATCCCGTTG  | 6779 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATCCCTCAA  | 6780 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATCCCTGTA  | 6781 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATCCCTTACC | 6782 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATCCCTTCTT | 6783 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATCCCTTGAA | 6784 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATCCGAACAA | 6785 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATCCGCCATC | 6786 | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATCCGCGCAC | 6787 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATCCGCGGAT | 6788 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATCCGGAGGC | 6789 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATCCGGAGGT | 6790 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATCCGTTCTA | 6791 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATCCTATTAT | 6792 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATCCTCGTCA | 6793 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATCCTGAATC | 6794 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATCCTTGTC  | 6795 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATCGAGAATG | 6796 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATCGAGGATA | 6797 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATCGATACT  | 6798 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATCGATTAAA | 6799 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATCGATTGAA | 6800 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATCGACAAAT | 6801 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATCGACCCAA | 6802 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | ATCTCAGTGC | 6831 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATCTCCAGAA | 6832 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTCCCAAT | 6833 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCTCCTAAT | 6834 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATCTCCTCTA | 6835 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTCCTTTC | 6836 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTCGAAGC | 6837 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTGACGAT | 6838 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCTGCTACA | 6839 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATCTGCTCAT | 6840 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATCTGGATAT | 6841 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCTGGATTT | 6842 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATCTGTAAA  | 6843 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATCTGTATTC | 6844 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCTGTCATC | 6845 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATCTGTGATA | 6846 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATCTGTGGCT | 6847 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCTGTTCGC | 6848 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATCTTAATTC | 6849 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTTAGTTT | 6850 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTTCACTA | 6851 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTTCTTGT | 6852 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATCTTGAAGC | 6853 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCTTTAACT | 6854 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATCTTTAATA | 6855 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATCTTTATTT | 6856 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATCTTTCTCA | 6857 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATCTTTGCCT | 6858 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |              |      |         |         |         |
|---|---|---|---|--------------|------|---------|---------|---------|
| 0 | 1 | 0 | 0 | ATCTTTGTCA   | 6859 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATCTTTTCGT   | 6860 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATCTTTTAT    | 6861 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATCTTTTGT    | 6862 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATGAAAGTTC   | 6863 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGAAAGGAAA  | 6864 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGAAAGGATC  | 6865 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATGAAAGGTT   | 6866 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGAAAGTAAA  | 6867 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGAAAGTTAA  | 6868 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGAAATTATC  | 6869 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGAAATTGAA  | 6870 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGACAACGC   | 6871 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGACATTTA   | 6872 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGACCAGGC   | 6873 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGACTAAGT   | 6874 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGACTGGTG   | 6875 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGAGACAAA   | 6876 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATGAGAGCGC   | 6877 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGAGATGCG   | 6878 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGAGATTAC   | 6879 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGAGCAGAA   | 6880 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGAGCTATG   | 6881 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGAGCTGCG   | 6882 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGAGGAACG   | 6883 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGAGGAACACT | 6884 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGAGGAGAG   | 6885 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGAGGGTTC   | 6886 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | ATGAGGTCCA  | 6887 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGAGGTTCC  | 6888 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATGAGTAGTA  | 6889 | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGAGTTACT  | 6890 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGATAACGC  | 6891 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGATAATGC  | 6892 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATGATAACAAG | 6893 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGATACGCG  | 6894 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGATAGCAA  | 6895 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATGATAGCAG  | 6896 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATGATAGTAC  | 6897 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATGATCAGTC  | 6898 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATGATCCACA  | 6899 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGATCCCTG  | 6900 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATGATCCTGA  | 6901 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATGATCGGTT  | 6902 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGATGAACT  | 6903 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGATGATAA  | 6904 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGATGCAAA  | 6905 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATGATGCCGG  | 6906 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATGATGTTCC  | 6907 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATGATGTTGA  | 6908 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATGATTAACA  | 6909 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGATTACCT  | 6910 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGATTACTG  | 6911 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATGATTGTTT  | 6912 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATGATTTTGA  | 6913 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATGCAACAGT  | 6914 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|---------|
| 1 | 0 | 0 | 0 | ATGCAACGCC  | 6915 | 0.0     | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGCAAGTGT  | 6916 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGCAATATT  | 6917 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCACCTAC  | 6918 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCATCCCC  | 6919 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCCAACCA  | 6920 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGCCACTAC  | 6921 | 0.0     |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATGCCAGTGT  | 6922 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGCCATTGG  | 6923 | 0.0     |         | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGCCTGCCA  | 6924 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGCCTTACC  | 6925 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCCTTTCT  | 6926 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCCGAACAT | 6927 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCCGATTTC | 6928 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCCGTTATT | 6929 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGCTAGCTG  | 6930 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 0 | 1 | 1 | ATGCTAGGCG  | 6931 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGOTCAGCC  | 6932 | 0.0     |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATGCTCCACG  | 6933 | 0.0     |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATGCTGGGGG  | 6934 | 0.0     |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATGCTGTCTGA | 6935 | 0.0     |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATGCTTAGGG  | 6936 | #DIV/0! |         | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGCTTTTCT  | 6937 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGGAAACT   | 6938 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGGAAGAAC  | 6939 | #DIV/0! | 0.0     |         | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGGACCTCC  | 6940 | #DIV/0! | 0.0     |         | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGGACTCCA  | 6941 | 0.0     |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATGGACTGAA  | 6942 | 0.0     |         | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | ATGGAGTCGT  | 6943 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATGGATAAT   | 6944 | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGGATTACG  | 6945 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGGATTAA   | 6946 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATGGCACCGC  | 6947 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGGCATTGC  | 6948 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATGGCCATCT  | 6949 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATGGCCCCACA | 6950 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATGGCGAATC  | 6951 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATGGCGAGTA  | 6952 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATGGCTAAT   | 6953 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATGGCTCAA   | 6954 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATGGCTCAGA  | 6955 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGGGATTTT  | 6956 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGGGCACCG  | 6957 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGGGCTCCC  | 6958 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATGGGCTTCT  | 6959 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGGGTGGTT  | 6960 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATGGTAATGG  | 6961 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATGGTATGAC  | 6962 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATGGTGAGCA  | 6963 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGGTGATGA  | 6964 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGGTGCATC  | 6965 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGGTGCTCT  | 6966 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGGTGTGAT  | 6967 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATGGTGTTAA  | 6968 | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATGGTTATAC  | 6969 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATGGTTTCT   | 6970 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | ATGTAAGATC | 6971 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGTAAGATT | 6972 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGTAATAGG | 6973 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGTACTCTT | 6974 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ATGTACTTTA | 6975 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATGTAGCGGG | 6976 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGTAGTAGT | 6977 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGTATGAGA | 6978 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGTATGGTT | 6979 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ATGTCAGCAT | 6980 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGTCATATC | 6981 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATGTCGGCTT | 6982 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGTGATGGA | 6983 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGTGGATGT | 6984 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATGTGTGTAA | 6985 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGTGTTCAA | 6986 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATGTTAACTT | 6987 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATGTTAAGCA | 6988 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATGTTATAGT | 6989 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGTTGATCT | 6990 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATGTTGGCGA | 6991 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATGTTTATT  | 6992 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATGTTTTTGG | 6993 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTAAAAGAT | 6994 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATTAAACGAT | 6995 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTAAAGTCC | 6996 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTAAATCCT | 6997 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATTAAACAAA | 6998 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |   |   |      |            |         |         |         |
|---|---|---|---|---|---|------|------------|---------|---------|---------|
| 1 | 0 | 0 | 0 | 0 | 0 | 6999 | ATTAACAAG  | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 0 | 0 | 7000 | ATTAAGGTA  | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | 0 | 7001 | ATTAATCAAT | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7002 | ATTAATGAAG | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7003 | ATTAATTACA | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | 0 | 7004 | ATTAATTTTG | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7005 | ATTACCAATA | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7006 | ATTACCGCTC | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | 0 | 7007 | ATTACCGTCT | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7008 | ATTACCTGTT | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7009 | ATTACGATAC | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | 0 | 7010 | ATTACGTGCG | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7011 | ATTACGTGTG | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 7012 | ATTAGAAGAA | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7013 | ATTAGAATCA | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | 0 | 7014 | ATTAGAATCG | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7015 | ATTAGATCTT | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 0 | 0 | 7016 | ATTAGTGGAA | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7017 | ATTAGTTACA | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7018 | ATTATATATT | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7019 | ATTATATTTT | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | 0 | 7020 | ATTATACCCG | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 7021 | ATTATCGAAA | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7022 | ATTATCTCTG | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7023 | ATTATCTGTT | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | 0 | 7024 | ATTATTAAGT | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | 0 | 7025 | ATTATTACCA | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | 7026 | ATTATTCAAT | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | 0 | ATTATTTCGA  | 7027 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCAAAAGT  | 7028 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTCAAACGC  | 7029 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTCAAATAT  | 7030 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATTCAAACGTT | 7031 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATTCAAACTGA | 7032 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCAACTGG  | 7033 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATTCAAAGCAG | 7034 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATTCAAATTC  | 7035 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | ATTCAGAAAGC | 7036 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATTCAGATTT  | 7037 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCATATCT  | 7038 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATTCCAAACA  | 7039 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCCAAGAA  | 7040 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATTCAGAAT   | 7041 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCCEAAGT  | 7042 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | ATTCGCTAGC  | 7043 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCGGCTTC  | 7044 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTCGTATCT  | 7045 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | ATTCGTGTAT  | 7046 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTCCTAACTC | 7047 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | ATTCCTACGAA | 7048 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | ATTCCTAGCTC | 7049 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATTCCTCTCAC | 7050 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | ATTCCTCTTTT | 7051 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCCTGAAGA | 7052 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTCCTGCAAT | 7053 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTCCTGGAAA | 7054 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | 0 | ATTCTGGACC | 7055 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTCTGGGT  | 7056 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTCTGGTGA | 7057 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTCTGGTGT | 7058 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTCTTCAGG | 7059 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTCTTGAGA | 7060 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTCTTGATT | 7061 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTCTTGCCT | 7062 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTCTTGGCA | 7063 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTCTTGTCT | 7064 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTCTTTCAA | 7065 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATTCTTTTGA | 7066 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTCTTTTT  | 7067 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGAAATGG | 7068 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATTGAATGTT | 7069 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGACGAAT | 7070 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | ATTGAGAGAA | 7071 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTGATATT  | 7072 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGATTCAA | 7073 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTGATTCGG | 7074 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATTGCCCGTA | 7075 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTGCCGAGT | 7076 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTGCCGCTC | 7077 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTGCGTTTT | 7078 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGCTAATC | 7079 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTGCTCCAA | 7080 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATTGCTGCAT | 7081 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTGCTTAGG | 7082 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | 0 | ATTGGAACGT | 7083 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTGGATGTT | 7084 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGGGAAC  | 7085 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTGGGAAGA | 7086 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATTGGGAGAC | 7087 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTGGGTGAC | 7088 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGGGTTGG | 7089 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATTGGTAGTC | 7090 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTGGTCTGG | 7091 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTGGTTTTT | 7092 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGTAAACG | 7093 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | ATTGTAAGGT | 7094 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATTGTAGATG | 7095 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTGTAGTTT | 7096 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTGTCGTGG | 7097 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTGTCCTGA | 7098 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGTGGTAG | 7099 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATTGTTAGAA | 7100 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTGTTCCCT | 7101 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTGTTGTTT | 7102 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | ATTGTTTGTC | 7103 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTTAATGTT | 7104 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTTACGTGA | 7105 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | ATTTACTCTG | 7106 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTTAGTTAA | 7107 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTATCAAA  | 7108 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | ATTATGATT  | 7109 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | ATTATGTTG  | 7110 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | ATTATTAAT   | 7111 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTATTTTT   | 7112 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATTTCAAAA   | 7113 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATTTCACGG   | 7114 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTTCATCA   | 7115 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATTTCATGG   | 7116 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATTTCACAA   | 7117 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTTCATCC   | 7118 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTTCGCCAG  | 7119 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTTCGATG   | 7120 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATTTCCTGAG  | 7121 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATTTCCTTC   | 7122 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATTTCCTAGG  | 7123 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATTTCCTCAA  | 7124 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATTTCCTGAA  | 7125 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATTTCCTTGA  | 7126 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATTTGAAAA   | 7127 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTTGATATC  | 7128 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATTTGATGAG  | 7129 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTTGATGCA  | 7130 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATTTGATCT   | 7131 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATTTGACCGG  | 7132 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATTTGGTAGA  | 7133 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | ATTTGTAGAA  | 7134 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | ATTTGTACAGC | 7135 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATTTGTITGA  | 7136 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTITAAAAA  | 7137 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTITTAAGTT | 7138 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | ATTTACAGC   | 7139 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATTTAGAAC   | 7140 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTTTAGTAG  | 7141 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATTTTAGTCT  | 7142 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATTTTAGTTA  | 7143 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | ATTTTATTCA  | 7144 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATTTTATTGT  | 7145 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATTTTCAAAT  | 7146 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATTTTCTCTT  | 7147 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | ATTTTCTTCA  | 7148 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTTTCTTGA  | 7149 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTTTCTTTT  | 7150 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | ATTTTGAAGG  | 7151 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTTTGAGAA  | 7152 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTTTGATAC  | 7153 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTTTGGAAAT | 7154 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATTTTGGCTG  | 7155 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | ATTTTGTATC  | 7156 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | ATTTTGTTTA  | 7157 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATTTTTACGC  | 7158 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | ATTTTTGCCA  | 7159 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | ATTTTTGGCA  | 7160 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | ATTTTTGTTA  | 7161 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAAAAACCG  | 7162 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAAAAATTA  | 7163 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAAAAACAAC  | 7164 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAAAACGAA  | 7165 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAAAACAACA | 7166 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | CAAACCATC   | 7167 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAAACCCAG  | 7168 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAAACCCAT  | 7169 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAAGACGT   | 7170 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAAGATT    | 7171 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAAAGCCTG  | 7172 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAAATACCG  | 7173 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAAATAGAT  | 7174 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAAATGGAT  | 7175 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAAATGGCT  | 7176 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAAAATTTCC  | 7177 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAACATTTA   | 7178 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAAACCCAGC | 7179 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAAACCGACT | 7180 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAACTGATT  | 7181 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAACTGGGT  | 7182 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAGACTTC   | 7183 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAAGAGGGG   | 7184 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAAGAGTCA   | 7185 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAAGCAAAT   | 7186 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAGCATT    | 7187 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAGCCCAA   | 7188 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAAGCCTGC   | 7189 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAAGGAAA    | 7190 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAGGACCG   | 7191 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAGGACCT   | 7192 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAGGACTA   | 7193 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAGGATT    | 7194 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | CAAAGTGGT   | 7195 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAAGGTGCG  | 7196 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAAGTCATA  | 7197 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAAGTCCCT  | 7198 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAAGTCGAC  | 7199 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAAGTGGCT  | 7200 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAAGTTGAA  | 7201 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAAGTTTAA  | 7202 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAATATATT  | 7203 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAATCTGGA  | 7204 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAAATCTTTG  | 7205 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAAATGCTGT  | 7206 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAATTCGAA  | 7207 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAATTCCTA  | 7208 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAATTTAAT  | 7209 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAAATTTGGA  | 7210 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAATTTGGT  | 7211 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAACAAAAGA  | 7212 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAACAAGCCA  | 7213 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAACAATTAC  | 7214 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAACAATTGG  | 7215 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAACACGGGT  | 7216 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAACACTGAA  | 7217 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAACCAAGCA  | 7218 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAACCAGCTT  | 7219 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAACCCAACT  | 7220 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAACCCCAATA | 7221 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAACCCGCTTA | 7222 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | CAACCTGTAT  | 7223 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAACGCTTTT  | 7224 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAACGTCGGT  | 7225 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAACGCTCTC  | 7226 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAACGCTCTT  | 7227 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAACTATATT  | 7228 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAACTTACTC  | 7229 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAACTTCTCC  | 7230 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAACTTGAGG  | 7231 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAACTTTATC  | 7232 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAGAAAAAA  | 7233 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAGAAAAAT  | 7234 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAAGAAAAATA | 7235 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAAGAAAGCGG | 7236 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAGAATAAA  | 7237 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAAGAGAGGA  | 7238 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAAGAGCTCC  | 7239 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAAGAGTATC  | 7240 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAAGAGTGCA  | 7241 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAGATGGCT  | 7242 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAAGCACGCC  | 7243 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAAGCCGCCG  | 7244 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAAGGAGCTA  | 7245 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAAGGCGGCT  | 7246 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAAGGGAATA  | 7247 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAGGGATAA  | 7248 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAAGTATATA  | 7249 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAAGTATTGA  | 7250 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CAAGTCTGGA  | 7251 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CAATAAAACA  | 7252 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CAATAAAATT  | 7253 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CAATAATCGG  | 7254 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CAATAATGGG  | 7255 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CAATACGTCG  | 7256 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CAATATCGAA  | 7257 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CAATATTGA   | 7258 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CAATCAAAAA  | 7259 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CAATCATCTG  | 7260 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CAATCCACTT  | 7261 | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 0 | 0 | CAATCGCCGG  | 7262 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CAATCGTGGT  | 7263 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CAATCTCAGG  | 7264 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CAATCTGACA  | 7265 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CAATGAAAAA  | 7266 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CAATGATTGA  | 7267 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CAATGCAATT  | 7268 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CAATGCTGAG  | 7269 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CAATGGACCG  | 7270 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CAATGGCCAG  | 7271 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CAATGGTTCC  | 7272 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CAATGTGCAT  | 7273 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CAATGTTTAC  | 7274 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CAATTA AAAA | 7275 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CAATTATCAA  | 7276 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CAATTCTCTA  | 7277 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CAATTCITGG  | 7278 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | CAATTGATAT | 7279 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAATTGATCT | 7280 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAATTGATTA | 7281 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAATTAAAT  | 7282 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAATTTAGCG | 7283 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAATTTGTGT | 7284 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAATTTTGGT | 7285 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CACAAAACCT | 7286 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CACAAAGGGA | 7287 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CACAAATTTT | 7288 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CACAACCCAA | 7289 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CACAAGTCTA | 7290 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CACACATTGA | 7291 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CACACCAAAA | 7292 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CACACCAAGG | 7293 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CACACCAATT | 7294 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CACACCCCGA | 7295 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CACACCTAGA | 7296 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CACACTTTGA | 7297 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CACAGACCAG | 7298 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CACAGGTTAC | 7299 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CACAGTTTCA | 7300 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CACAGTTTCC | 7301 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CACATAAAAA | 7302 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CACATAAGGA | 7303 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CACATAGAAG | 7304 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CACATATATA | 7305 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CACATCTCAG | 7306 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CACATTTTTC  | 7307 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CACATTTTTT  | 7308 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACCAAAAAA  | 7309 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CACCAAAGAA  | 7310 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CACCAAAGGC  | 7311 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CACCAACTAC  | 7312 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACCAAGCGT  | 7313 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CACCATCGAA  | 7314 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CACCCACCAG  | 7315 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CACCCAGATT  | 7316 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CACCCGCCAG  | 7317 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CACCGAAAGC  | 7318 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CACCGCGAAG  | 7319 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACCGTAAAA  | 7320 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CACCTCAAGG  | 7321 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CACCTTCAAT  | 7322 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CACGAAAAAA  | 7323 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CACGAAGTCG  | 7324 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CACGACTACT  | 7325 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CACGATCGAA  | 7326 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CACGATTTGA  | 7327 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACGGAAAGC  | 7328 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CACGGCGCCG  | 7329 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CACGTAAGGG  | 7330 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CACGTCCACA  | 7331 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CACGTTTCTG  | 7332 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CACTAAACTG  | 7333 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACTAACAAAG | 7334 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 0 | 0 | CACTAACCAT | 7335 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 1 | 0 | 0 | CACTAGTTTC | 7337 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTATCATC | 7338 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTCAACAA | 7339 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CACTCACCCA | 7340 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CACTCCAAGA | 7341 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTCCGGCC | 7342 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 0 | 1 | 1 | CACTCTGGGC | 7344 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACTGCTGAT | 7345 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CACTGCTTAA | 7346 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTGGAGTT | 7347 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTGTCCCC | 7348 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTGTTTAT | 7349 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACTTCAACG | 7350 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CACTTCCACA | 7351 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTTCGACA | 7352 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACTTCGACT | 7353 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CACTTCTGGC | 7354 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTTCTTAA | 7355 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CACTTGAAAA | 7356 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CACTTGAAGC | 7357 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CACTTGAGTC | 7358 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CACTTTAAAA | 7359 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CACTTTTAT  | 7360 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CAGAAAAGTT | 7361 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CAGAAACAAA | 7362 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 1 | 0 | 0 | 0 | CAGAAGCTCA | 7365 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 0 | 0 | 1 | CAGAATGAAT | 7367 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CAGAATGATG | 7368 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CAGACAAACT | 7369 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 0 | 1 | CAGACGAAGT | 7371 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | CAGAGCCGTT | 7373 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CAGAGTTGGT | 7374 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CAGATACAGA | 7375 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CAGATATTGA | 7376 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CAGATCTATT | 7377 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CAGATCTGAG | 7378 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CAGATGGGGG | 7379 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CAGATGGTCC | 7380 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CAGATTTCAA | 7381 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CAGATTTCTC | 7382 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CAGATTTTGG | 7383 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CAGCAAAACT | 7384 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CAGCAAAAGA | 7385 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CAGCAGATTG | 7386 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CAGCAGCAAA | 7387 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CAGCAGGTTT | 7388 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CAGCCAAAAA | 7389 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CAGCCAAATA | 7390 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 1 | CAGCCGGGTC | 7393 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAGCCTTAA  | 7394 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGCGCAGGC | 7395 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAGCGGACCC | 7396 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CAGCGGTGGT | 7397 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAGCTAACCG | 7398 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAGCTAAGGA | 7399 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGCTAAGGC | 7400 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAGCTCTCAC | 7401 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGCTGACCG | 7402 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAGCTTTATC | 7403 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGCTTTCTT | 7404 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAGCTTTTAA | 7405 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAGGAAATGG | 7406 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAGGAAGCAG | 7407 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAGGAATAAA | 7408 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGGAATGCT | 7409 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAGGACCATC | 7410 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAGGAGAGAT | 7411 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGGATGTTG | 7412 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CAGGCACTAA | 7413 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGGCCAGTT | 7414 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAGGCTCATC | 7415 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CAGGGAGTCT | 7416 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAGGGATCGA | 7417 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CAGGGTAAAA | 7418 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
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| 0 | 0 | 1 | CAGGCTTTG  | 7420 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAGGTGATAG | 7421 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAGGTTCTGT | 7422 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAGGTTTGT  | 7423 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGTAATACT | 7424 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAGTAATATC | 7425 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAGTACAAC  | 7426 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CAGTACACCG | 7427 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CAGTAGCAAA | 7428 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAGTATCTAA | 7429 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAGTGCGAAA | 7430 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAGTGAACA  | 7431 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CAGTTAAAT  | 7432 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CAGTTCTTCA | 7433 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CAGTTGATTT | 7434 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CATAAACTCT | 7435 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CATAAATTAC | 7436 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CATAACCTTC | 7437 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CATAACTCAT | 7438 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CATAAGCAAC | 7439 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CATAAGTTTT | 7440 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CATAATTTTC | 7441 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CATACGCACA | 7442 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CATACGTGTA | 7443 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CATACTCTCG | 7444 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CATACTTCAT | 7445 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CATACITCGA | 7446 | 0.0     | #DIV/0! | 0.0     |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 0 | 0 | 1 | CATATAAGC   | 7448 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | 0 | CATATACATT  | 7450 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CATATAGAAT  | 7451 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CATATAGATA  | 7452 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CATATATAAA  | 7453 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CATATCTCGA  | 7454 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CATATGTGCT  | 7455 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATATTCTGT  | 7456 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATATTGGG   | 7457 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CATCAAAAAA  | 7458 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CATCAAAAGT  | 7459 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATCAAGATT  | 7460 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CATCAATGGA  | 7461 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCAGGTAC  | 7462 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CATCACTGAT  | 7463 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CATCAGAAAT  | 7464 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATCAGCTAA  | 7465 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATCAGCTCT  | 7466 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CATCATAAAC  | 7467 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCATTATA  | 7468 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CATCATTCTT  | 7469 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CATCATTTAA  | 7470 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATCCAATCC  | 7471 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATCCATTAG  | 7472 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CATCCITTAAT | 7473 | #DIV/0! | #DIV/0! | #DIV/0! |
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Table 5, cont.

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| 0 | 1 | 0 | 0 | CATCGTTCTT  | 7477 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCTAAGCC  | 7478 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCTACACA  | 7479 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCTACTGG  | 7480 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCTAGGAG  | 7481 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CATCTATTCC  | 7482 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CATCTCAAAA  | 7483 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCTCATAT  | 7484 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATCTCTCAA  | 7485 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CATCTCTCTT  | 7486 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CATCTGGAAC  | 7487 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CATCTTATCT  | 7488 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CATCTTTACT  | 7489 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CATCTTTTTT  | 7490 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CATTAACAAA  | 7491 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CATTAACAGT  | 7492 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTAAGCG   | 7493 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CATTAAGTCT  | 7494 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTAATGTT  | 7495 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTAGCCTT  | 7496 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CATTAGGAAC  | 7497 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATTATTAG   | 7498 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATTATTGAA  | 7499 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CATTCAAAAT  | 7500 | #DIV/0! | 0.0     | #DIV/0! |
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| 1 | 0 | 0 | 0 | CATTCCCTTAT | 7502 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

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| 0 | 0 | 1 | 0 | CATTGAAGAA | 7505 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTGAGCAA | 7506 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CATTGAGCCG | 7507 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CATTGCAAGT | 7508 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTGCCATT | 7509 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CATTGGATGG | 7510 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CATTTCACCA | 7511 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CATTCTACG  | 7512 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CATTCTTAT  | 7513 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTCTTCT  | 7514 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTCTTTA  | 7515 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTGAAGG  | 7516 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTGATAG  | 7517 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CATTGCAGG  | 7518 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CATTGCGTA  | 7519 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CATTGGGTC  | 7520 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CATTTACCC  | 7521 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CATTTACCT  | 7522 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | CATTTATAT  | 7523 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | CATTTCCCC  | 7524 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CATTTTCGA  | 7525 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATTTTTGG  | 7526 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CATTTTTTC  | 7527 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCAAAAGGG  | 7528 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCAAACTTC  | 7529 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCAAAAGGGC | 7530 | 0.0     | #DIV/0! | 0.0     |



Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 0 | 1 | CCAAGGGTAA  | 7560 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CCAAGGGTCT  | 7561 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CCAAGGTATC  | 7562 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CCAAGGTAT   | 7563 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CCAAGGTTCT  | 7564 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCAAGTACTT  | 7565 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CCAAGTGCTA  | 7566 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CCAATATTC   | 7567 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAATCTTCA  | 7568 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAATGAGCA  | 7569 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CCAATGCATT  | 7570 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CCAATGGAAA  | 7571 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CCAATTAATT  | 7572 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAATTCATT  | 7573 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCAATTTTGG  | 7574 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCACAAAAAA  | 7575 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCACAATCCT  | 7576 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCACCAATTT  | 7577 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCACCAGATT  | 7578 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCACGGCCAC  | 7579 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCACGGTTTT  | 7580 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCACTAAAAG  | 7581 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCACTAAAT   | 7582 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCACTCACGG  | 7583 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCACTGACCT  | 7584 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCAGAAAACCT | 7585 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CCAGAAACAA  | 7586 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 1 | 0 | 0 | CCAGAACTAT | 7589 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CCAGAAGCTA | 7590 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CCAGAATATC | 7591 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CCAGAATTGT | 7592 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCAGAGGCAA | 7593 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAGAGTTCA | 7594 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAGATATGG | 7595 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAGATCTGT | 7596 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAGATTAGT | 7597 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CCAGATTATG | 7598 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCAGATTCTG | 7599 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CCAGATTAT  | 7600 | #DIV/0! | 0.0     | 0.0     |
| 0 | 0 | 1 | CCAGATTGA  | 7601 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCAGATTGG  | 7602 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CCAGCAAGAT | 7603 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCAGCAGGCG | 7604 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CCAGCGAGCG | 7605 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CCAGCTGATG | 7606 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCAGCTTTGG | 7607 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCAGGCATCC | 7608 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CCAGGGACCA | 7609 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCAGGGGAGA | 7610 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CCAGGTATGA | 7611 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CCAGGTCTGA | 7612 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CCAGGTGAAT | 7613 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CCAGTAAGAG | 7614 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 0 | 1 | 0 | CCAGTGAATA  | 7616 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CCAGTTTGAG  | 7617 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCATAAAGTT  | 7618 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCATACAATA  | 7619 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCATACAGGC  | 7620 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCATACTACG  | 7621 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCATAGCTTA  | 7622 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CCATATTCT   | 7623 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CCATCAAGCC  | 7624 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CCATCACATC  | 7625 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCATCAGTTT  | 7626 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCATCCCTAC  | 7627 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCATCCCTGGG | 7628 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CCATCGGTAC  | 7629 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | CCATCTCAAA  | 7630 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCATCTTAAC  | 7631 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCATCTTTAG  | 7632 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCATCTTTCT  | 7633 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCATCTTTGA  | 7634 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCATCTTTGC  | 7635 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCATTACATT  | 7636 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCATTAGAAC  | 7637 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCATTATCAA  | 7638 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCATTCTGGA  | 7639 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCATTCTGGT  | 7640 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCATTGAACA  | 7641 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCATTGCTGT  | 7642 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CCATTGGAA  | 7643 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCATTGGAC  | 7644 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCATTTTCA  | 7645 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCATTTTCT  | 7646 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCAAAAAA  | 7647 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCCAAACTC  | 7648 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCAAAATGG | 7649 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCAAGCTG  | 7650 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCCAACTACT | 7651 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCAACTCGG | 7652 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCAACTTTC | 7653 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCAATCCAA | 7654 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCAATTACT | 7655 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCCACCAAGA | 7656 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCACCATCA | 7657 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCACCTTAT | 7658 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCACGGAAG | 7659 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCCACGGTTC | 7660 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCACTCAG  | 7661 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCAGATATG  | 7662 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCAGGGTAT  | 7663 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCAGTACCG  | 7664 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCATACTCA | 7665 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCATCTTTA | 7666 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCATTGAAA | 7667 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCATTTTCT | 7668 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCCCGTAAC | 7669 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCCCGTACA | 7670 | 0.0     | #DIV/0! | 0.0     |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | CCCCGATTGG  | 7671 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | 0 | CCCCGTACAA  | 7673 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCCGTACAC  | 7674 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCCGTCCAT  | 7675 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCCCTCAAAA  | 7676 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCCCTTAATT  | 7677 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCCTTGTCG  | 7678 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCCGATGTTG  | 7679 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCGCCATAA  | 7680 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCCGCCGCTC  | 7681 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCCGCGTCTC  | 7682 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCGGATATG  | 7683 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCCGGTTTTC  | 7684 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCCGTAATAG  | 7685 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCTAAAAAA  | 7686 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCCTAAATTT  | 7687 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CCCTAAAGTT  | 7688 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCTACTACG  | 7689 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CCCTACTGTC  | 7690 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCTAGAAAG  | 7691 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCCTCCCCTC  | 7692 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCTCCTATA  | 7693 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCTGCAAAAC | 7694 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCTGGAAGT  | 7695 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCTCCCCTT  | 7696 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCCTTCTGTG  | 7697 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCCTTGAAAA  | 7698 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | 0 | CCGAACCTGT  | 7699 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | CCGAACGGGT  | 7700 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGACAACGT  | 7701 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGACAAGTC  | 7702 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | CCGAGAAGAA  | 7703 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | CCGAGAAGTT  | 7704 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGAGGTAT   | 7705 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGATAAAG   | 7706 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | CCGATATACT  | 7707 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 1 | CCGATCACAA  | 7708 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | CCGATTGTTT  | 7709 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGCCAGCGC  | 7710 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGCCGCTAA  | 7711 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | CCGCCGCTAT  | 7712 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGCTAAAGT  | 7713 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGCTCCGAA  | 7714 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | CCGCTGAGTC  | 7715 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 1 | CCGGAAGGCC  | 7716 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | CCGGAACGTC  | 7717 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | CCGGAATGAC  | 7718 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | CCGGAACAATG | 7719 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | CCGGACGCTG  | 7720 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | CCGGACGGCA  | 7721 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | CCGGACGGTT  | 7722 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGGATATGA  | 7723 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | CCGGATCGTC  | 7724 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | CCGGATTGTT  | 7725 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CCGGCAAACC  | 7726 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 1 | 1 | CCGGGCACTC | 7728 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGGGTATCG | 7729 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGGGTCTCA | 7730 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGGGTTGGT | 7731 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGGTTATAA | 7732 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGGTTCGGA | 7733 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGGTTGCAG | 7734 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCGGTTTAGC | 7735 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCGTAAGTGG | 7736 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGTACCTCT | 7737 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGTCACTAC | 7738 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGTCCATCA | 7739 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGTCCGTAT | 7740 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGTCCCTCT | 7741 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGTCTGTTT | 7742 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGTGTATGG | 7743 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGTACCC   | 7744 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CCGTCAACT  | 7745 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGTGAGGA  | 7746 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGTGGCAG  | 7747 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCGTTTTGA  | 7748 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCGTTTTGG  | 7749 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CCTAAAGTTA | 7750 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTAAGCTAA | 7751 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CCTAAGCTGA | 7752 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTACCGTCT | 7753 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTACTAAAA | 7754 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |     |         |         |         |
|---|---|---|---|------------|------|-----|---------|---------|---------|
| 1 | 0 | 0 | 0 | CCTATAGAAA | 7755 | 0.0 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCTATAGGCG | 7756 |     | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTATCTATA | 7757 | 0.0 |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCTATTGTTA | 7758 |     | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTCAACTTA | 7759 | 0.0 |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCTCAAGGTT | 7760 |     | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTCAGAAAG | 7761 | 0.0 |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTCCAATAA | 7762 | 0.0 |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCTCCAGCAC | 7763 |     | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCTCCATTGA | 7764 |     | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTCCTAATG | 7765 | 0.0 |         | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTCCTGGTG | 7766 | 0.0 |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCTCTATAGC | 7767 |     | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCTCTCTTGA | 7768 |     | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTCTCTTTT | 7769 |     | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTCTGAAAG | 7770 | 0.0 |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCTCTGGGAA | 7771 |     | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTCTGGGTA | 7772 | 0.0 |         | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCTCTTAACA | 7773 |     | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CCTGAAGTTT | 7774 |     | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTGAATAAA | 7775 | 0.0 |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTGAATCTC | 7776 | 0.0 |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTGACGTGT | 7777 | 0.0 |         | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTGAGGTAT | 7778 | 0.0 |         | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CCTGAGTATG | 7779 |     | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | CCTGATCAAG | 7780 |     | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGATGAGG | 7781 |     | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGATTGTG | 7782 |     | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CCTGCAAAA  | 7783 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CCTGCAACC  | 7784 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGCAAGC  | 7785 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGCTCAA  | 7786 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CCTGGAAGTA | 7787 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGGAGCAG | 7788 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGGCGCTC | 7789 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGGGTCGT | 7790 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGGTAATC | 7791 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGGTGTTA | 7792 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGTCGCTG | 7793 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGTGACCA | 7794 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGTGCTTT | 7795 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTGTCTCA  | 7796 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTTAAAAA  | 7797 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTTACAATC | 7798 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTTATGTTG | 7799 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CCTTCAACAA | 7800 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCTTCACTTT | 7801 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CCTTCCAGGG | 7802 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTTCCGAAT | 7803 | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CCTTCCTAAA | 7804 | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTTCCTATG | 7805 | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTTCTCGTT | 7806 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CCTTCTGCTG | 7807 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CCTTCTGTTT | 7808 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CCTTCTTACA | 7809 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CCTTGCAAGC | 7810 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | CCITGGCATT | 7811 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CCTTAGCCC  | 7812 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CCTTTCAGTT | 7813 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CCTTTGAGGA | 7814 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCTTTGAGTG | 7815 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCTTTGATAT | 7816 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CCTTTGCTAA | 7817 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCTTTGACC  | 7818 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCTTTGAGGA | 7819 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CCTTTACGT  | 7820 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CCTTTATTT  | 7821 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CCTTTTCGTA | 7822 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CCTTTTCATA | 7823 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CCTTTTCGTA | 7824 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGAAAAAATA | 7825 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CGAAAGACTG | 7826 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CGAAATTTTA | 7827 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CGAACGAGAA | 7828 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGAACTTTTC | 7829 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CGAAGATCTT | 7830 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGAAGATGGC | 7831 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CGAAGTTCGC | 7832 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CGAATAATCC | 7833 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CGAATATTCT | 7834 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CGAATCCGTC | 7835 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CGAATCGAGA | 7836 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGAATCTCCC | 7837 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CGAATTCGCT | 7838 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CGAATTTTG  | 7839 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGACAACTG  | 7840 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGACAGCGGT | 7841 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGACAGTGAC | 7842 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGACCTTAGT | 7843 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGACCTTGT  | 7844 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGACGGAGT  | 7845 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGACGTATT  | 7846 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGACTGGGT  | 7847 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CGAGAGAAGA | 7848 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGAGATCACA | 7849 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGAGATTAA  | 7850 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGAGCAATAG | 7851 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGAGCTTTCA | 7852 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGAGGCGAGA | 7853 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGAGGCTCCG | 7854 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGAGGGAAGC | 7855 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGAGTCCTTC | 7856 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGAGTGCATA | 7857 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGATCCTTCA | 7858 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGATCTTGA  | 7859 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGATCTTTAC | 7860 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGATGACAGA | 7861 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGATGCTCCT | 7862 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGATGGTTCC | 7863 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGATGTGTAA | 7864 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGATTAATCA | 7865 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGATTACAGT | 7866 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CGATTCATTT | 7867 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGATTGCACA | 7868 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGATTGCGCA | 7869 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CGATTTTAAC | 7870 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGATTTTGA  | 7871 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGCAAAAATC | 7872 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCAAAAGCT | 7873 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CGCAACGTGT | 7874 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGCAAGAATT | 7875 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGCAATATCA | 7876 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCACGAGTG | 7877 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CGCAGAGGCC | 7878 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGCAGCGGTA | 7879 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCAGTTATT | 7880 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGCATAAAAA | 7881 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCATCTCTT | 7882 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGCATTAGTA | 7883 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGCATTATAT | 7884 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGCATTCGGG | 7885 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCATTTAAG | 7886 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGCATTTACA | 7887 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCATTTGAC | 7888 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGCCAAAATA | 7889 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCCAAATCT | 7890 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGCCACTCAA | 7891 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGCCAGAACC | 7892 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGCCATTAAA | 7893 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGCCTGAATG | 7894 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CGCGAAAATA | 7895 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGCGCAATAG | 7896 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGCGCGTATA | 7897 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGCGCTAAGG | 7898 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGCGTTTGTA | 7899 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGCTAACTAC | 7900 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCTAAGTGA | 7901 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGCTACATAT | 7902 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCTACGTTC | 7903 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CGCTACTGTC | 7904 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGCTCCAACC | 7905 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGCTCTTTCC | 7906 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGCTGGGTAA | 7907 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CGCTTGAT   | 7908 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGCTTTTGCG | 7909 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGGAAAACCT | 7910 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGGAAAGATG | 7911 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGGAAGGTCT | 7912 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGGAATTTGT | 7913 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGGACAAATC | 7914 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGGACCATTG | 7915 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGGACCTGGT | 7916 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGGACCTTGG | 7917 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGGAGAATAA | 7918 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGGAGGGTAT | 7919 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGGATGGTAC | 7920 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGGATTACCA | 7921 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGGCAAAAAA | 7922 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | CGGCAAAATTC | 7923 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CGGCCCGTAG  | 7924 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CGGCTCTGGG  | 7925 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CGGCTTGGGA  | 7926 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CGGGAACAAT  | 7927 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGGGAATAAT  | 7928 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CGGGAATTTT  | 7929 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGGGACGCCA  | 7930 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CGGGAGAACT  | 7931 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CGGGAGCTAA  | 7932 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGGGCGTGAA  | 7933 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CGGGTCATCA  | 7934 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CGGGTTGATG  | 7935 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CGGTAATATA  | 7936 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CGGTAGCCCA  | 7937 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGGTAGTCCG  | 7938 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CGGTAGTCCT  | 7939 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGGTAGTCGA  | 7940 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CGGTCACCAT  | 7941 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CGGTCCAAAC  | 7942 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGGTCCCAAT  | 7943 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CGGTGAAAGA  | 7944 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CGGTGAGTGA  | 7945 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CGGTGAGTGG  | 7946 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CGGTGGCTTA  | 7947 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CGGTGGTAGA  | 7948 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CGGTAGTAGT  | 7949 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CGGTTTGAGC  | 7950 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | CGGTTTCTA   | 7951 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CGGTTTGGG   | 7952 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTAAAAAA   | 7953 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CGTAAATACC  | 7954 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CGTAAGAAAA  | 7955 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTAATGTCG  | 7956 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTACACAAA  | 7957 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTACAGAAA  | 7958 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CGTAGCAGTA  | 7959 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CGTAGGATGA  | 7960 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CGTAGTAAGT  | 7961 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTATTAGAG  | 7962 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTATTCATA  | 7963 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTATTCTGA  | 7964 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CGTATTTAAA  | 7965 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTCAAAACA  | 7966 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTCAATATC  | 7967 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CGTCAGTGTG  | 7968 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CGTCCAGGAT  | 7969 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTCCATCCG  | 7970 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CGTCGACATC  | 7971 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTCGAGCTT  | 7972 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGTCTTTTTT  | 7973 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTGAGGTGA  | 7974 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGTGCCACCA  | 7975 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTGCCATAG  | 7976 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGTGCCCTGCT | 7977 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTGCTTTCT  | 7978 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | CGTGAATAT  | 7979 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTTAAATT  | 7980 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGTTACTAC  | 7981 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGTTACTGG  | 7982 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTTAGATT  | 7983 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTTATTGG  | 7984 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CGTTCAACT  | 7985 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGTTCACTAC | 7986 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTTCTTAC  | 7987 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CGTTGAGAA  | 7988 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTTGTAAGA | 7989 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGTTGTGCT  | 7990 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTTTCAGT  | 7991 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CGTTTCCAT  | 7992 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGTTTCGGT  | 7993 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGTTTCTTG  | 7994 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CGTTTFAAA  | 7995 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTTTATAA  | 7996 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CGTTTATAT  | 7997 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CGTTTCTTT  | 7998 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CGTTTITTC  | 7999 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTAAACGGG  | 8000 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTAAAGAGG  | 8001 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTAAATGTC  | 8002 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAAATTTT  | 8003 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTAAAGGGG  | 8004 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAAATCAA  | 8005 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTAAATTGC  | 8006 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | CTAAGAAACC  | 8007 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTAAGACCGC  | 8008 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTAAGCCTAC  | 8009 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTAAGCGTTA  | 8010 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTAAGGGTAT  | 8011 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTAATAATAC  | 8012 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTAATATTAC  | 8013 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTAATCAAAA  | 8014 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTAATCAGTT  | 8015 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTAATGGGGA  | 8016 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTAATTCAG   | 8017 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTAATTGCAT  | 8018 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTAATTGTCC  | 8019 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTAATTGTCT  | 8020 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTACAACGCG  | 8021 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTACAATCCA  | 8022 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTACATATAT  | 8023 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTACATCAAA  | 8024 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTACATCGAT  | 8025 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTACCCCTGG  | 8026 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTACCGCCTA  | 8027 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTACCTTACG  | 8028 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTACTGGGCA  | 8029 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTACTTCCAC  | 8030 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTAGAAAAAG  | 8031 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTAGAAAAGAG | 8032 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTAGAAAGGT  | 8033 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTAGAAGACT  | 8034 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | 0 | CTAGAAATATT | 8035 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTAGAAATTAC | 8036 | #DIV/0! |         | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAGAAATTAT | 8037 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTAGACACTC  | 8038 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTAGACGCCG  | 8039 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAGAGACGA  | 8040 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTAGATCAGC  | 8041 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTAGATTGT   | 8042 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAGCAACGC  | 8043 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTAGCACAGC  | 8044 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTAGCAGTTT  | 8045 | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTAGCCACTG  | 8046 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTAGCCGTAT  | 8047 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAGCGATAT  | 8048 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTAGCGTTGT  | 8049 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTAGGCGTTA  | 8050 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAGTAATAG  | 8051 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTAGTGACCT  | 8052 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTAGTGCCCA  | 8053 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTATAAAAT   | 8054 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTATAAAAGG  | 8055 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTATAAAGAA  | 8056 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTATAAAGAC  | 8057 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTATAAAGCT  | 8058 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTATACAACA  | 8059 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTATATCACT  | 8060 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTATATTCAC  | 8061 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTATCAAAGA  | 8062 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | CTATCAGCAG  | 8063 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTATCCGCCA  | 8064 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTATCGAGTT  | 8065 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTATCTAATT  | 8066 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTATCTTACA  | 8067 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTATCTTTAC  | 8068 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTATGGGGAT  | 8069 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTATGTAAC   | 8070 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTATTAGGAC  | 8071 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTATTATATA  | 8072 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTATTATATT  | 8073 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTATTCACGA  | 8074 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTATTCCTTT  | 8075 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTATTCCTTAT | 8076 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTATTGATAA  | 8077 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTATTGATAC  | 8078 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTATTGCTTG  | 8079 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTATTTCAGA  | 8080 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTATTTTGG   | 8081 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTCAAAAAA   | 8082 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTCAAAACCCG | 8083 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTCAAAATTAA | 8084 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTCAAGAGGT  | 8085 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTCAAGATCC  | 8086 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTCAAGATGC  | 8087 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTCAATCCAC  | 8088 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTCAATCCTA  | 8089 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTCAATCTAA  | 8090 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CTCAATTGCA  | 8091 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTCACAAATA  | 8092 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTCACACAAA  | 8093 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CTCACACCTT  | 8094 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCACATTGA  | 8095 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCACTCAAT  | 8096 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCAGCAAAT  | 8097 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCAGCCATT  | 8098 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CTCAGCTCGC  | 8099 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCAGTATTG  | 8100 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCATAATCG  | 8101 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCATCAGTA  | 8102 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CTCATCCAAAG | 8103 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCATTAACG  | 8104 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCATTATCT  | 8105 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCATTGATA  | 8106 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCATTCTG   | 8107 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTCATTITAT  | 8108 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CTCCAAGAAA  | 8109 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCCACTGAT  | 8110 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCCCCATCC  | 8111 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCCCTCAT   | 8112 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTCCGTTTTT  | 8113 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCCTCCATT  | 8114 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CTCCTGTTTA  | 8115 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCCTTCTAT  | 8116 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCGAAAAAG  | 8117 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCGAACCAAC | 8118 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 0 | 1 | CTCGATAATC | 8119 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | CTCGATAGAA | 8120 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCGATGGAG | 8121 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCGATGTGC | 8122 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CTCGATTCTT | 8123 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCGCAAGAT | 8124 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCGCATTTA | 8125 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTCGCCGCAC | 8126 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCGCCTTCA | 8127 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCGGCAATA | 8128 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | CTCGGGTCAC | 8129 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCGGTAAT  | 8130 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCGGTAAGT | 8131 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CTCGTTTCCA | 8132 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCTAAAAAT | 8133 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCTAAGAGA | 8134 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCTACCGTC | 8135 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTCTACTGAG | 8136 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | CTCTACTGGC | 8137 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCTAGAAAA | 8138 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCTAGAAGA | 8139 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCTAGAAGT | 8140 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCTAGCAAC | 8141 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTCTAGCTCC | 8142 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTCTATACCG | 8143 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCTCATATC | 8144 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCTCATTCA | 8145 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTCTCCGAAT | 8146 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | CTCTCGGGT   | 8147 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTCTCTATTC  | 8148 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTCTCTGTCT  | 8149 | #DIV/0! |         | #DIV/0! |
| 1 | 0 | 0 | CTCTGAGATA  | 8150 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTCTGATACT  | 8151 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTCTGCCATC  | 8152 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTCTTAATTG  | 8153 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTCTTACTGT  | 8154 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTCTTCGCCT  | 8155 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTCTTCTTCA  | 8156 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTCTTGGGTT  | 8157 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTCTTGTGAA  | 8158 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTCTTTAGCA  | 8159 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTCTTTATAC  | 8160 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTCTTTCATA  | 8161 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTCTTCTAT   | 8162 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTCTTTGAAA  | 8163 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTCTTTGAAT  | 8164 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTCTTTTGAA  | 8165 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTGAAAAAAG  | 8166 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGAAAAACC  | 8167 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGAAAAACAT | 8168 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTGAAAAATAT | 8169 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTGAAATACT  | 8170 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGAAATATA  | 8171 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGAAATTTAT | 8172 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGAAATTTT  | 8173 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGAACGAAG  | 8174 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | CTGAACCTACA | 8175 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGAACCTACC | 8176 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGAAGCAGG  | 8177 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGAAGCAGT  | 8178 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGACAAATT  | 8179 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGACCAAAC  | 8180 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGACCCCTT  | 8181 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGACGGGAC  | 8182 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTGAGGGGAC  | 8183 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTGATCCGTG  | 8184 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGATGGAAC  | 8185 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGATTTAGA  | 8186 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGATTTCAA  | 8187 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTGCAAGTAG  | 8188 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTGCACGGTA  | 8189 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTGCACTGGC  | 8190 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTGCAGCTAA  | 8191 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTGCATTAAAC | 8192 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGCATTACA  | 8193 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGCCAAGTG  | 8194 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTGCCAATGG  | 8195 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTGCCAGACA  | 8196 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTGCCCCCGT  | 8197 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTGCCCTCGG  | 8198 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTGCCCTGGG  | 8199 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTGCCCGGTGA | 8200 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGCCTCAGC  | 8201 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGCCTCCAC  | 8202 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CTGCCCTTACA | 8203 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTGCGATTTT  | 8204 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTGCGGATTC  | 8205 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTGCGGCACT  | 8206 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CTGCGTTACC  | 8207 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGCGTTTCT  | 8208 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGCTAACGG  | 8209 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGCTATATT  | 8210 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGCTATGCA  | 8211 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTGCTCAAAT  | 8212 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGCTCAGGG  | 8213 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTGCTCTAGG  | 8214 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTGCTCTCGG  | 8215 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGCTCTGGA  | 8216 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGCTCTTGA  | 8217 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGCTGCTGC  | 8218 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGCTTAAAA  | 8219 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTGCTTCACG  | 8220 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGCTTGCTG  | 8221 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGCTTTTAG  | 8222 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGGAAAAAA  | 8223 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTGGAATGGA  | 8224 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGGACCAAT  | 8225 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTGGAGGGAA  | 8226 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGGATATAA  | 8227 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGGATGGGA  | 8228 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTGGCATAAC  | 8229 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGGCCAAAA  | 8230 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
| 0 | 1 | 0 | CTGGCCAGAA  | 8231 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTGGCCTGGG  | 8232 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTGGCGAACC  | 8233 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTGGCTCCTT  | 8234 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTGGCTCTGG  | 8235 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTGGGCTAGTG | 8236 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTGGGTCCCA  | 8237 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGGGTGGGC  | 8238 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTGGTAAAT   | 8239 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTGGTATTGC  | 8240 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTGGTCAAAA  | 8241 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGGTGAAGC  | 8242 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTGGTGCTAG  | 8243 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTGGTGCTCA  | 8244 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTGGTTATTA  | 8245 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGGTTGCAC  | 8246 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGGTTTATT  | 8247 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGGTTTTTG  | 8248 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTGTAAGTCT  | 8249 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGTATATCG  | 8250 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTGTATCGGC  | 8251 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTGTATCTGA  | 8252 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGTATGTTT  | 8253 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGTATTTC   | 8254 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGTCCCTGA  | 8255 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTGTCCCTTG  | 8256 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTGTCCCTGAA | 8257 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTGTCCGAGGA | 8258 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CTGTCGTTTG | 8259 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTGCTAACG  | 8260 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGCTICAGA | 8261 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGCTCTICA | 8262 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CTGTGAGCAG | 8263 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGTGATATC | 8264 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTGTGCCGCA | 8265 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGTGGTGAA | 8266 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTGTGTTTTT | 8267 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTGTACTAG  | 8268 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CTGTAGTAT  | 8269 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGTTGGTCG | 8270 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGTTGTTGC | 8271 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTGTTGGAG  | 8272 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | CTGTTTTCTT | 8273 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTGTTTGCA  | 8274 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTTAAATTT  | 8275 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTTAAACCGA | 8276 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTTAAATCTC | 8277 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTAACACTC | 8278 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTTAACCAT  | 8279 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTAACATAA | 8280 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CTTAAGACAT | 8281 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | CTTAAGCAGG | 8282 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTAAGCTGG | 8283 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTTACATTGA | 8284 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTACCAGTT | 8285 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | CTTACTCTTC | 8286 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|
| 0 | 0 | 1 | 0 | 0 | CTTACTTAGT  | 8287 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTAGCCCAG  | 8288 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTATAGGCA  | 8289 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | CTTATATAGA  | 8290 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 0 | CTTATGGAGT  | 8291 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTATTATT   | 8292 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | CTTATTTCAA  | 8293 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | CTTCAAAAA   | 8294 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | CTTCAAAACA  | 8295 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCAACAAC  | 8296 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCAACTCC  | 8297 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCAATTCC  | 8298 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCACTTT   | 8299 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCACTTGA  | 8300 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCACTCCA  | 8301 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCACTCGT  | 8302 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCATTAAAC | 8303 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCCAGCTT  | 8304 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCCCAGGT  | 8305 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCCGCGGA  | 8306 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCCTTAGG  | 8307 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCGGAATT  | 8308 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCGTCTTG  | 8309 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCTACTTT  | 8310 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCTCAAGT  | 8311 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCTCGCAG  | 8312 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | CTTCTCGTTA  | 8313 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | CTTCTCTGGG  | 8314 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 1 | 0 | CTTCTGTTCA  | 8316 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTTCTTATAT  | 8317 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTTCTTGCGG  | 8318 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTTGAAGAG   | 8319 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTTGAATACA  | 8320 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTTGAGAACC  | 8321 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTTGAGAATC  | 8322 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTTGAGATAT  | 8323 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTTGAGTTGC  | 8324 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTTGATAATC  | 8325 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTTGATGAAT  | 8326 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTTGATGTTT  | 8327 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTTGATTATG  | 8328 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTTGATCTC   | 8329 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTTGCGACAG  | 8330 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CTTGCTATT   | 8331 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | CTTGCTCCAA  | 8332 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTTGCTGGCA  | 8333 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | CTTGAGACAG  | 8334 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTTGGCATT   | 8335 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTTGGCTATT  | 8336 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | CTTGGGAAGC  | 8337 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CTTGGTGGTA  | 8338 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CTTGTAAATGG | 8339 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CTTGTATGGA  | 8340 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | CTTGTATGGT  | 8341 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | CTTGTATGTT  | 8342 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | CTTGATTAC   | 8343 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTTGCTGTC   | 8344 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTTGTTGCTT  | 8345 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTTAATTTC  | 8346 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTTTACACTC  | 8347 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTTTACTTTT  | 8348 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTTTATAAAA  | 8349 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTTATAAAG  | 8350 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | CTTTATACGT  | 8351 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTTTCATATA  | 8352 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTTCATTGA  | 8353 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTTTCCAAAC  | 8354 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTTTCCAATC  | 8355 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTTTCGCACC  | 8356 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTTTCGGAAA  | 8357 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTTCGTAAA  | 8358 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | CTTTCCTGTG  | 8359 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTTGAAAAA  | 8360 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTTTGAAAGC  | 8361 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | CTTTGAAATG  | 8362 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | CTTTGAACGA  | 8363 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTTTGCCAAA  | 8364 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTTTGCCCCAC | 8365 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | CTTTGCTGCT  | 8366 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTTTGCTTAC  | 8367 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | CTTTGGAACA  | 8368 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | CTTTGTAATA  | 8369 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | CTTTGTACAA  | 8370 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 1 | 0 | CITTTGTCTCC | 8373 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTGTGACT | 8374 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTTAAAAA | 8375 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTTAACAC | 8376 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTTAAGGA | 8377 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CITTTTAGACT | 8378 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | CITTTTAGGAA | 8379 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CITTTTCAGCT | 8380 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTTCATAC | 8381 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTTCTAGA | 8382 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CITTTTCTTCC | 8383 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CITTTTGAAGA | 8384 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CITTTTGTTCT | 8385 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | CITTTTTCATA | 8386 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTTCTCG  | 8387 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | CITTTTGGAA  | 8388 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | CITTTTTATT  | 8389 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAAAAAAAGA | 8390 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAAAAACAT  | 8391 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAAAAACCA  | 8392 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAAAAACTT  | 8393 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAAAAAAGTT  | 8394 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAAAAACATT  | 8395 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAAAAACCTC  | 8396 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAAAAGACG  | 8397 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAAAATTGA  | 8398 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 0 | 1 | GAAAAATTGG | 8399 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAACACCT  | 8400 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAAACACTA  | 8401 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAACACTC  | 8402 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAACATCC  | 8403 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAACATTA  | 8404 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAACATTT  | 8405 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAACCATC  | 8406 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAACGTAT  | 8407 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAAACTGGA  | 8408 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAACTGGT  | 8409 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAAACTTGA  | 8410 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAACTTTG  | 8411 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAAGAGCA  | 8412 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAAGATTA  | 8413 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAAGCTAG  | 8414 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAAGGCC   | 8415 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAAGGCGG  | 8416 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAAAGGTTA  | 8417 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAAAGTACC  | 8418 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAATACAA  | 8419 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAATGACG  | 8420 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAATGCAA  | 8421 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAATGCC   | 8422 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAATGTAA  | 8423 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAATTACT  | 8424 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAAATTTC   | 8425 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAACAAAC  | 8426 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | GAAACAAGCTC | 8427 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAAACAAGGG  | 8428 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAACAGTGT  | 8429 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAACCATAT  | 8430 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAACCCAAA  | 8431 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAACCGGTG  | 8432 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAACCTGGA  | 8433 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAACTCGCC  | 8434 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAACTTTT   | 8435 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAAGAAAA   | 8436 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAAGAAGCG  | 8437 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAAGAAGCT  | 8438 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAAGACAGA  | 8439 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAAGAGCTG  | 8440 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAAGAGTTT  | 8441 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAAGATTGC  | 8442 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAAAGATTTT  | 8443 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAAAGCATCT  | 8444 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAAGCCGGT  | 8445 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAAGCCTTT  | 8446 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAAAGCTTTC  | 8447 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAAAGTACAA  | 8448 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAAGTTAGA  | 8449 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAAAGTTCCG  | 8450 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAAGTTTAA  | 8451 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAATAAGAA  | 8452 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAATATGTA  | 8453 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAAATCAACA  | 8454 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 0 | GAAATCAGTG | 8455 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAATCCAAT | 8456 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAATCGGGT | 8457 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAATCTGCT | 8458 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAATCTGGG | 8459 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAATCTTCG | 8460 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAATGACAT | 8461 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAATGGAAT | 8462 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAATGGAGG | 8463 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAATGGTAC | 8464 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAATTAGGG | 8465 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAATTGATG | 8466 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAACAAACA  | 8467 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAACAAAGTT | 8468 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAACAAGGAA | 8469 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAACAATGTT | 8470 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAACAATTAT | 8471 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAACACATCT | 8472 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAACACCTCT | 8473 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAACACTCCT | 8474 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAACACTGCT | 8475 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAACACTTAG | 8476 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAACACTTCA | 8477 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAACACTTCC | 8478 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAACACTTGT | 8479 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAACACTTTT | 8480 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAACAGACCA | 8481 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAACAGGTAG | 8482 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 0 | 1 | 0 | GAACAGTGCC | 8484 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAACATCTCT | 8485 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAACATTCTA | 8486 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAACATTTCT | 8487 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAACCAAGTC | 8488 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAACCCAATG | 8489 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAACCGATT  | 8490 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAACCGCTAA | 8491 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAACCGGTGA | 8492 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAACCTGCCA | 8493 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAACCTGCCG | 8494 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAACGACCTG | 8495 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAACGAGCAT | 8496 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAACGAGGTT | 8497 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAACGATATA | 8498 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAACGCATAC | 8499 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAACGCATCT | 8500 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAACGCCTTA | 8501 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAACGGACAA | 8502 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAACGGAGAC | 8503 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAACGGCTCT | 8504 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAACGGGATA | 8505 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAACGTGAAC | 8506 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAACTAACT  | 8507 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAACTCCAGA | 8508 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAACTGATAG | 8509 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAACCTGGTC | 8510 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 0 | 1 | 0 | GAACCTTACA | 8512 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAGAAAAAA | 8513 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAAGAAATCG | 8514 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAAGAAGAAC | 8515 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAGAAGAAG | 8516 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAGAAGAGA | 8517 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAGAATTGA | 8518 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAAGAATTGC | 8519 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAAGAATTGG | 8520 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAAGACAGAG | 8521 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAGACATCT | 8522 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAAGACCTGC | 8523 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAGACGGTT | 8524 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAGACGTGG | 8525 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAGACTGGT | 8526 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAGACTGTC | 8527 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAAGAGAGTG | 8528 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAAGAGATCG | 8529 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAGAGCGAG | 8530 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAGAGCGGT | 8531 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAAGAGTAA  | 8532 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAAGATATCT | 8533 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAAGATATTG | 8534 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAGATCCTT | 8535 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAAGATTAGC | 8536 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAAGCAGCAC | 8537 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAAGCCATCG | 8538 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | GAAGCCCTCC | 8539 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAAGCCGTAA | 8540 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAAGCCTGAG | 8541 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAGCTATCA | 8542 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAGCTTTTG | 8543 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GAAGGAAAGC | 8544 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAAGGAAGCA | 8545 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAGGACGTG | 8546 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAAGGATGGG | 8547 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAAGGATTAG | 8548 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAAGGATTTA | 8549 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAAGGATTTG | 8550 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAGGTTATG | 8551 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAAGGTTTCC | 8552 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAAGTACAAT | 8553 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAGTACAGG | 8554 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAAGTAGAGG | 8555 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAAGTAGCAC | 8556 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAGTATTAG | 8557 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAAGTCGCTT | 8558 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAAGTGTTTT | 8559 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAAGTTATTA | 8560 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAAGTTGTAA | 8561 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATAAAGT  | 8562 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAATAAGAAT | 8563 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATAATAAG | 8564 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAATAATTGG | 8565 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATACAGCA | 8566 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 0 | 1 | 0 | 0 | GAATACCATA | 8567 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 1 | 0 | 0 | GAATACTAAA | 8569 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GAATACTACT | 8570 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATACTAGG | 8571 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATACTTAA | 8572 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAATACTTCT | 8573 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATAGGGAT | 8574 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATAGGGCT | 8575 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATATATTA | 8576 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATATGGAC | 8577 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAATCCAAAA | 8578 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATCCAATA | 8579 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATCGGCAT | 8580 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAATCTCTCA | 8581 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATCTGGAA | 8582 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATCTGGTA | 8583 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATCTTGAA | 8584 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATGAATTT | 8585 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATGATAGA | 8586 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATGCAAAA | 8587 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATGCACAA | 8588 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAATGCTTAC | 8589 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAATGGAACC | 8590 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATGGAGAA | 8591 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATGGGACG | 8592 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATGGGTTA | 8593 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATGGGTTT | 8594 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | GAATTACCAA  | 8596 | #DIV/0! |         | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATTACTTA  | 8597 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAATTAGGGG  | 8598 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATTCCTAT  | 8599 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAATTCGGTA  | 8600 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAATTGACAG  | 8601 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAATTGACGG  | 8602 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAATTGAGAG  | 8603 | #DIV/0! | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GAATTGAGTT  | 8604 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAATTGAAA   | 8605 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GAATTGCTT   | 8606 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GACAACCTACT | 8607 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GACAACCTGCT | 8608 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACAAGAAAA  | 8609 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACAAGGAGT  | 8610 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GACAAGTTGG  | 8611 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GACAATGGTA  | 8612 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GACACAATAC  | 8613 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACACAGACC  | 8614 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GACACAGACG  | 8615 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GACACCCACC  | 8616 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACACCGTGA  | 8617 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACAGAAAAC  | 8618 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACAGAACTT  | 8619 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GACAGAAGGT  | 8620 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GACAGATCTC  | 8621 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GACAGATCTT  | 8622 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 1 | 0 | 0 | GACAGCTTCA | 8624 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GACAGGCTTG | 8625 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GACAGGTTCC | 8626 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GACAGTGATC | 8627 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GACATACGTG | 8628 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GACATATCAT | 8629 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GACATCAAGG | 8630 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GACATCGATA | 8631 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GACATCTCGA | 8632 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GACATCTTAG | 8633 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GACATTACTC | 8634 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GACATTGGCC | 8635 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GACATTTTCG | 8636 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GACATTTTGA | 8637 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GACCAAGAAG | 8638 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GACCACTATT | 8639 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GACCATAAAC | 8640 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GACCATTCTC | 8641 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GACCATTTAA | 8642 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GACCATTTGA | 8643 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GACCCAACAG | 8644 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GACCCAGATG | 8645 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GACCCAGGGC | 8646 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GACCCATCAG | 8647 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GACCCCTTCC | 8648 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GACCCCTTCC | 8649 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GACCGCACCA | 8650 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 1 | 0 | 0 | 0 | GACCTAAGCT | 8653 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACCTACTCC | 8654 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACCTCACTG | 8655 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACCTCGGAG | 8656 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACCTGAAAA | 8657 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACCTGCGTA | 8658 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACCTTGCCA | 8659 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACGAAAGGC | 8660 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACGAAGAAA | 8661 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GACGACAAGC | 8662 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACGACCTGC | 8663 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GACGAGCACC | 8664 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GACGAGGATG | 8665 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACGATATAA | 8666 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GACGATCTTG | 8667 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GACGATGCAA | 8668 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACGCACTTT | 8669 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACGCCATCA | 8670 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GACGCTAATA | 8671 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GACGCTTGGA | 8672 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GACGGAATAA | 8673 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GACGGACCAT | 8674 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GACGTAGAAA | 8675 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACGTAGAAC | 8676 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACGTCCATC | 8677 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACGTGAAGG | 8678 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | GACGTGGAAA | 8679 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACGTTTAAA | 8680 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACGTTTACT | 8681 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACTAAATTT | 8682 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACTAAGCTA | 8683 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTACCTTC | 8684 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACTAGACAA | 8685 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTAGAGCG | 8686 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTAGTTTT | 8687 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACTATACCG | 8688 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GACTATTTAC | 8689 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTCCGGGA | 8690 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GACTCTCAAG | 8691 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GACTCTTATG | 8692 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACTCTTCGC | 8693 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GACTCTTCTC | 8694 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GACTGACTCA | 8695 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACTGCAAAA | 8696 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACTGCTTGT | 8697 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GACTGTGCTG | 8698 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTTACGTA | 8699 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACTTATTGC | 8700 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTTCCATA | 8701 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTTCGAGA | 8702 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GACTTCTTGT | 8703 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GACTTGATTC | 8704 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GACTTGTTGA | 8705 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GACTTTACTT | 8706 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 1 | 0 | 0 | GACTTTTTC  | 8708 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAGAAACAA  | 8709 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGAAACCG  | 8710 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAGAAAGACA | 8711 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGAAATTGA | 8712 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAGAAATTGG | 8713 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGAACAGAA | 8714 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGAACATCT | 8715 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAGAACGTAA | 8716 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAGAGAACC  | 8717 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGAGAGCT  | 8718 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAGAGCCAG  | 8719 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGAGTATT  | 8720 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGATGCGT  | 8721 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAGACAACGT | 8722 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAGACACCTT | 8723 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAGACACTCA | 8724 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGACCATTG | 8725 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAGACGGATA | 8726 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGACTGGTT | 8727 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GAGACTTGTC | 8728 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGAGAACCC | 8729 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAGAGAAGGC | 8730 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAGAGAGATT | 8731 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAGAGAGTGG | 8732 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAGAGATGAT | 8733 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGAGCAAAA | 8734 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |      |         |         |         |
|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | GAGAGCAAT   | 8735 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGAGCAGAA  | 8736 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGAGCCACC  | 8737 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAGAGCGCAA  | 8738 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGAGCTCAC  | 8739 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGAGGAGCC  | 8740 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGAGTTCGG  | 8741 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGATGCTAT  | 8742 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGATTAGTC  | 8743 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGCAAAAAA  | 8744 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGCAAAAGT  | 8745 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGCAATAT   | 8746 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGCAATCCG  | 8747 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGCAGTTGT  | 8748 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGCATAACGG | 8749 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGCCAATTT  | 8750 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGCCAGCTT  | 8751 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGCCCTGGC  | 8752 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GAGCCCTGTT  | 8753 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGCCGTCCA  | 8754 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGCCGTTGT  | 8755 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGCGAAGTA  | 8756 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAGCGACATC  | 8757 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGCGCATT   | 8758 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGCGCGATG  | 8759 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | GAGCGTATAA  | 8760 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGCGTTGGT  | 8761 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGCTAATGA  | 8762 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 1 | 0 | 0 | 0 | GAGCTCTGTA | 8765 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGCTTATTA | 8766 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 0 | GAGCTTGAGA | 8767 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | GAGGAAAGTA | 8768 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGGAAAGTT | 8769 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGGAACAGG | 8770 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGGAATGTA | 8771 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGGAATTCA | 8772 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGGACACCA | 8773 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GAGGACGCC  | 8774 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGGACGCCT | 8775 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 0 | GAGGACGTGG | 8776 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | GAGGAGATT  | 8777 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | GAGGAGCGG  | 8778 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGGAGGTTG | 8779 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGGAGTTGC | 8780 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGGATAACA | 8781 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGGATATCG | 8782 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGGATGAGG | 8783 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 0 | GAGGATGTCG | 8784 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGGCAAAAT | 8785 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GAGGCACCTG | 8786 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GAGCGGACA  | 8787 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 0 | GAGCGTTTT  | 8788 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GAGGCTGATC | 8789 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GAGGGAATA  | 8790 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

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|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 1 | GAGGGATTCA | 8792 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAGGGATTCC | 8793 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAGGGCTCTG | 8794 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAGGGGAATA | 8795 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAGGGGTTCC | 8796 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAGGGTCTCG | 8797 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAGGGTGGGG | 8798 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAGGGTGGGT | 8799 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGGTAAAGT | 8800 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAGGTAGACA | 8801 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GAGGTAGTGA | 8802 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAGGTGTTTA | 8803 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGTAAAG   | 8804 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGTAAACTT | 8805 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAGTACAATA | 8806 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GAGTACCAAC | 8807 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGTACTCTT | 8808 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGTAGGCCG | 8809 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GAGTATAATA | 8810 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAGTCAATAG | 8811 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAGTCACAAT | 8812 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAGTCGCTGA | 8813 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAGTCTCTTC | 8814 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAGTGAAAAA | 8815 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAGTGCCAAA | 8816 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GAGTGGGATA | 8817 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GAGTGTCCAC | 8818 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |     |         |         |
|---|---|---|------------|------|---------|-----|---------|---------|
| 0 | 1 | 0 | GAGTTATACC | 8819 | #DIV/0! | 0.0 | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GAGTTGGGCC | 8820 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GAGTTGGAAT | 8821 | 0.0     |     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GAGTTTATGA | 8822 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATAAAAAA  | 8823 | #DIV/0! | 0.0 |         | #DIV/0! |
| 1 | 0 | 0 | GATAAAATAC | 8824 | 0.0     |     | #DIV/0! | 1.0     |
| 0 | 1 | 0 | GATAAAGAAC | 8825 | #DIV/0! | 0.0 |         | #DIV/0! |
| 0 | 0 | 1 | GATAAATACG | 8826 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATAAATCCC | 8827 | #DIV/0! | 0.0 |         | #DIV/0! |
| 0 | 1 | 0 | GATAACAACA | 8828 | #DIV/0! | 0.0 |         | #DIV/0! |
| 1 | 0 | 0 | GATAACTATG | 8829 | 0.0     |     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATAAGATT  | 8830 | 0.0     |     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATAAGGACT | 8831 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATAAGGCC  | 8832 | #DIV/0! | 0.0 |         | #DIV/0! |
| 0 | 0 | 1 | GATAAGGCTA | 8833 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATAAGGTTA | 8834 | 0.0     |     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATAATACCA | 8835 | #DIV/0! | 0.0 |         | #DIV/0! |
| 0 | 1 | 0 | GATAATGAAT | 8836 | #DIV/0! | 0.0 |         | #DIV/0! |
| 1 | 0 | 0 | GATAATGATG | 8837 | 0.0     |     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATAATTACC | 8838 | 0.0     |     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATAATTTTG | 8839 | #DIV/0! | 0.0 |         | #DIV/0! |
| 0 | 0 | 1 | GATACAAATA | 8840 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATACAAGAC | 8841 | #DIV/0! | 0.0 |         | #DIV/0! |
| 1 | 0 | 0 | GATACAAGGT | 8842 | 0.0     |     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATACCAATC | 8843 | #DIV/0! |     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATACCTGGA | 8844 | #DIV/0! | 0.0 |         | #DIV/0! |
| 1 | 0 | 0 | GATACGACAA | 8845 | 0.0     |     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATAGGAAC  | 8846 | #DIV/0! |     | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 1 | GATAGTTAGA | 8849 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATATAATA  | 8850 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATATAATGG | 8851 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATATCTCCA | 8852 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATATGCATA | 8853 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATATGCGTT | 8854 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATATGGATA | 8855 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATATGGATG | 8856 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATATGTGGG | 8857 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATATGTTCT | 8858 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATATTAAAA | 8859 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATATTACAA | 8860 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATATTCAG  | 8861 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATATTTCCG | 8862 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATATTTCTT | 8863 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATCAACCTC | 8864 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATCAACGAG | 8865 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATCAAGGTA | 8866 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATCAAGTTA | 8867 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATCACTGGT | 8868 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATCAGAAGT | 8869 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATCAGATTA | 8870 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATCAGTTGG | 8871 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATCATCTGG | 8872 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATCCAGTGG | 8873 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATCCCAGCG | 8874 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 0 | 0 | 1 | GATCCTTTTG  | 8877 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATCGAGAAA  | 8878 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATCGCATAT  | 8879 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATCGCCCTT  | 8880 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATCGTACAG  | 8881 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATCGTGCTT  | 8882 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATCGTGTCT  | 8883 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATCGTTGAA  | 8884 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATCGTTTTC  | 8885 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATCTATAAA  | 8886 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATCTCACCA  | 8887 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATCTTTAAT  | 8888 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGAAAACG  | 8889 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGAAAAGA  | 8890 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGAAATAG  | 8891 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATGAAATTC  | 8892 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATGAACAGG  | 8893 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATGAAGACA  | 8894 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATGAAGGTT  | 8895 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGACACTT  | 8896 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATGACTTGT  | 8897 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATGAGAAAA  | 8898 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATGAGACTC  | 8899 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATGAGATCC  | 8900 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGAGATTAA | 8901 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGAGCAAT  | 8902 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |             |      |         |         |         |
|---|---|---|-------------|------|---------|---------|---------|
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| 1 | 0 | 0 | GATGAGTTTC  | 8904 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATGATGAAA  | 8905 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATGCAAAAA  | 8906 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATGCAAAGG  | 8907 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATGCACACG  | 8908 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATGCAGCAC  | 8909 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATGCCACAA  | 8910 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGCCATCA  | 8911 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATGCCCCAA  | 8912 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATGCCGTTAA | 8913 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATGCTGATC  | 8914 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATGGAACAA  | 8915 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATGGAAGGT  | 8916 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATGGAGTTA  | 8917 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATGGATGCT  | 8918 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATGGCTTCT  | 8919 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATGGGCTCC  | 8920 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATGGGCTAG  | 8921 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATGGGTTGT  | 8922 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GATGGTGGAT  | 8923 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATGGTTTTA  | 8924 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATGTAATAT  | 8925 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATGTACAAC  | 8926 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATGTAGAAA  | 8927 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATGTATGAA  | 8928 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATGTCAAAC  | 8929 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATGTCAACG  | 8930 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |            |      |         |         |         |
|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 1 | GATGTCATCC | 8933 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATGTGACTG | 8934 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATGTGCAAC | 8935 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATGTTAACG | 8936 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATGTTCTTG | 8937 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATGTTTTGT | 8938 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATTAACAAA | 8939 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATTAAGAGG | 8940 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATTAAGGCT | 8941 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATTACCAGA | 8942 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATTACTAAG | 8943 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATTACTATC | 8944 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATTATGGAT | 8945 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATTATTTGT | 8946 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATTCACCGG | 8947 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATTCACCCC | 8948 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATTCACAAC | 8949 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | GATTCATTG  | 8950 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GATCTCGAA  | 8951 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GATTGAAAA  | 8952 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GATTGAAAT  | 8953 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATTGAGCAT | 8954 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GATTGCAAGA | 8955 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GATTGCATTG | 8956 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GATTGCTGAA | 8957 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GATTGTAGAA | 8958 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 1 | 0 | GATTGTCTAC | 8961 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GATTGTCTTT | 8962 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GATTGTGACA | 8963 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GATTGTTCTG | 8964 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | GATTGTTTCT | 8965 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GATTTAAAT  | 8966 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | GATTTAACCT | 8967 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | GATTATTGT  | 8968 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GATTTCAAA  | 8969 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | GATTTCAGGA | 8970 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GATTTCGTCA | 8971 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | GATTCTACT  | 8972 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GATTCTTGT  | 8973 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GATTGGAGC  | 8974 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GATTGGCAA  | 8975 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GATTGGCTG  | 8976 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GATTGGTTA  | 8977 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GATTTAAAA  | 8978 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | GATTTATCA  | 8979 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GATTTTGTT  | 8980 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GATTTTTCTT | 8981 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GATTTTTGAA | 8982 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GATTTTTAT  | 8983 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GCAAAAAAAA | 8984 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | GCAAAAAATG | 8985 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | GCAAAACCTT | 8986 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |   |             |      |         |         |         |
|---|---|---|---|---|-------------|------|---------|---------|---------|
| 1 | 0 | 0 | 0 | 0 | GCAAACTTT   | 8987 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | GCAAAATATA  | 8988 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | GCAAAATATT  | 8989 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | GCAAAATTAG  | 8990 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | GCAAAACCAAC | 8991 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | GCAAACTACT  | 8992 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | GCAAAAGACTT | 8993 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | GCAAAAGGATA | 8994 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | GCAAAAGGCGA | 8995 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | GCAAAAGTTGG | 8996 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | GCAAAATAATA | 8997 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | GCAAAATGGAA | 8998 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | GCAAAATTTGT | 8999 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | GCAAAATTTTT | 9000 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | GCAACAAGAA  | 9001 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | GCAACACCCG  | 9002 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | GCAACACCTT  | 9003 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | GCAACAGAAG  | 9004 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | 0 | GCAACAGGAG  | 9005 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | 0 | GCAACATTCTG | 9006 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | GCAACCAATG  | 9007 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | GCAACCAATT  | 9008 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | GCAACCCAAT  | 9009 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | GCAACCCGGT  | 9010 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | GCAACTTTAC  | 9011 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | GCAACTTTCA  | 9012 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | GCAAGAAAGA  | 9013 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | GCAAGAAGGT  | 9014 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |      |         |         |         |
|---|---|---|---|------------|------|---------|---------|---------|
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| 0 | 0 | 0 | 1 | GCAAGACCCT | 9016 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GCAAGACCTC | 9017 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GCAAGATCTG | 9018 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | GCAAGCAAGC | 9019 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GCAAGGTATC | 9020 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GCAAGGTGTT | 9021 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GCAAGTCTT  | 9022 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GCAATAAAAA | 9023 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GCAATACTAA | 9024 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GCAATAGTAC | 9025 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GCAATATCAC | 9026 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GCAATATTAC | 9027 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GCAATGGCAG | 9028 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GCAATGGCCA | 9029 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GCAATTAGAC | 9030 | 0.0     | #DIV/0! | 0.0     |
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| 1 | 0 | 0 | 0 | GCACAATATT | 9032 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GCACACTTCT | 9033 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GCACAGGTAT | 9034 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GCACATCAGC | 9035 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GCACCAATGG | 9036 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GCACCATTTT | 9037 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GCACCCCAAC | 9038 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GCACCTGTGA | 9039 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | GCACGCCTAT | 9040 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GCACGGTAAC | 9041 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GCACGTAAGG | 9042 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

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| 0 | 1 | 0 | GCACTGAGAA  | 9047 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GCACTGAGTC  | 9048 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GCACTGATCT  | 9049 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GCACTGCATA  | 9050 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GCACTGGAGT  | 9051 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GCAGAAACAA  | 9052 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GCAGAAATTA  | 9053 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GCAGAACGCC  | 9054 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GCAGAAGGAT  | 9055 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GCAGACCGCT  | 9056 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | GCAGACTTGG  | 9057 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GCAGAGATGA  | 9058 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GCAGATGCTT  | 9059 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GCAGATTTC A | 9060 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GCAGCACAAA  | 9061 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GCAGCTACCT  | 9062 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | GCAGCTCTGT  | 9063 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GCAGCTCTTT  | 9064 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GCAGGCCAGC  | 9065 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GCAGGCCAGG  | 9066 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GCAGGTGTGT  | 9067 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | GCAGGTGGG   | 9068 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | GCAGTAAAG   | 9069 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GCAGTAGAGA  | 9070 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

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| 0 | 0 | 1 | 1 | GCATACTAAC  | 9077 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GCATAGGAGT  | 9078 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | 0 | GCATATTGTA  | 9082 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GCATCATCGC  | 9083 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GCATCCAACC  | 9084 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GCATCCCGTG  | 9085 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GCATCCGCC   | 9086 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GCATCTAGAA  | 9087 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GCATCTCCAA  | 9088 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GCATCTGTAT  | 9089 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | GCATCTTCAT  | 9090 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GCATCTTTCT  | 9091 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | GCATTACAAA  | 9092 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | GCATTACTGG  | 9093 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | GCATTCCCTGG | 9094 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | GCATTGAAAA  | 9095 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | GCATTGGATG  | 9096 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | GCATTGTTTG  | 9097 | #DIV/0! | #DIV/0! | #DIV/0! |
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Table 5, cont.

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| 0 | 0 | 1 | 0 | GCCAATTAA  | 9115 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GCCAATTATT | 9116 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GCCACATTCT | 9117 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | GCCACGACTA | 9118 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | GCCACGATGC | 9119 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | GCCACGGTCC | 9120 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 0 | GCCAGCACTA | 9123 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | GCCAGGACAA | 9124 | 0.0     | #DIV/0! | 0.0     |
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Table 5, cont.

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| 1 | 0 | 0 | 0 | 0 | GCCATTGCGG  | 9130 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 1 | 0 | 0 | 0 | GCCCCAGCTC  | 9134 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | GCCCGCAAAG  | 9135 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 1 | 0 | 0 | 0 | GCCCTCCCCC  | 9137 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | GCCCTGGCCA  | 9138 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 0 | 1 | 0 | GCCCTTCCTT  | 9140 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 0 | 1 | 0 | GCCGCACTTG  | 9142 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | GCCGCATACA  | 9143 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 1 | 0 | 0 | 0 | GCCGCTATGC  | 9148 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | GCCGCTGCTA  | 9149 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | GCCGCTTCGT  | 9150 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | GCCGGCAGAT  | 9151 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | GCCGGGGGTA  | 9152 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | GCCGGTGCGG  | 9153 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | GCCGTGGAGT  | 9154 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

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| 0 | 0 | 1 | GCCTTAAGTT | 9169 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | GCCTTAGCGC | 9170 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | GCCTTCAACT | 9171 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | GCCTTCAGGC | 9172 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | GCCTTGCAAA | 9177 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | GCCTTGTGAA | 9179 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | GCCTTTCCCA | 9180 | #DIV/0! | #DIV/0! | #DIV/0! |
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Table 5, cont.

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| 0 | 0 | 1 | 0 | GCGATCCACG  | 9199 | #DIV/0! | 0.0     | #DIV/0! |
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Table 5, cont.

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| 0 | 1 | 0 | TAGCCCTAAA | 10618 | #DIV/0! | 0.0     | #DIV/0! |
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| 1 | 0 | 0 | TAGGTGTGAC | 10630 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TAGGTGTTC  | 10631 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TAGTAAAGAA | 10632 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TAGTAAATGT | 10633 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TAGTAACAAG | 10634 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TAGTAATATA | 10635 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TAGTAATCTC | 10636 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TAGTACGAAA | 10637 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TAGTACTGTT | 10638 | #DIV/0! | #DIV/0! | #DIV/0! |





Table 5, cont.

|   |   |   |   |            |       |         |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|---------|
| 0 | 1 | 0 | 0 | TATACAAGCT | 10667 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TATACCACCT | 10668 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATACCTTGG | 10669 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATACGATAC | 10670 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATACTAATG | 10671 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 0 | 0 | TATACTACGC | 10672 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TATACTGGTT | 10673 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATACTGTAT | 10674 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATACTTAAC | 10675 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATAGAATTG | 10676 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 0 | 0 | TATAGACCTT | 10677 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 0 | 1 | 1 | TATAGAGGAA | 10678 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATAGATTCA | 10679 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 0 | 0 | TATAGCATAA | 10680 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TATAGCTGTT | 10681 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATAGGTCAT | 10682 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 0 | 0 | TATATAACCT | 10683 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATATAATAG | 10684 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATATATAAA | 10685 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TATATATATG | 10686 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TATATATGAT | 10687 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATATATGTG | 10688 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 0 | 1 | 0 | 0 | TATATCTATA | 10689 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATATCTTTC | 10690 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATATGTATG | 10691 | 0.0     | #DIV/0! | 0.0     | 0.0     |
| 1 | 0 | 0 | 0 | TATATGTTTA | 10692 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TATATTAATA | 10693 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TATATTACAC | 10694 | 0.0     | #DIV/0! | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
| 1 | 0 | 0 | 0 | TATATTAGTT | 10695 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TATATTATCA | 10696 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATATTATTA | 10697 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TATATTATTG | 10698 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATATTCCCG | 10699 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TATATTCCIT | 10700 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATATTCTIT | 10701 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATCAAAAAA | 10702 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATCAAGTGG | 10703 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATCAATTGT | 10704 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATCACATTG | 10705 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATCCAGITT | 10706 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TATCCATATA | 10707 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TATCCATTGA | 10708 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TATCCTCTGG | 10709 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATCCTTCTC | 10710 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATCGACTGC | 10711 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATCGAGGGT | 10712 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATCGGCCAC | 10713 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATCTAAAAA | 10714 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATCTACCAA | 10715 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATCTATTGG | 10716 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATCTCAGAT | 10717 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TATCTGAAAG | 10718 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATCTGGACC | 10719 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATCTTCTAA | 10720 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATCTTGCTG | 10721 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATCTTTGCA | 10722 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
| 1 | 0 | 0 | 0 | TATGTAATAA | 10751 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATGTAATTA | 10752 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATGTACGTA | 10753 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATGTATACC | 10754 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATGTATCAT | 10755 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATGTATTCT | 10756 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TATGTATTIT | 10757 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATGTCGAAA | 10758 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATGTGATAA | 10759 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATGTGGTAC | 10760 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATGTGTAGA | 10761 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATGTGTATA | 10762 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATGTTAAAA | 10763 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATGTTATGT | 10764 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TATTAAGGA  | 10765 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTAAGATT | 10766 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATTAGTATT | 10767 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATTATTATC | 10768 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTCATTTG | 10769 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATTCAGGGT | 10770 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TATTCGGAAG | 10771 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TATTCGGAAG | 10772 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TATTCGGGAT | 10773 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTCCTCCG | 10774 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTCCTGTT | 10775 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TATTCITATT | 10776 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATTCGCAAT | 10777 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TATTCGAACC | 10778 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
| 1 | 0 | 0 | 0 | TATTGGAACA | 10779 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TATTGGACTT | 10780 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATTGGCAAT | 10781 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATTGGGAGA | 10782 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTGGTACT | 10783 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTGGTAGG | 10784 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TATTGTAGTT | 10785 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TATTGTGTGC | 10786 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATTTAAAA  | 10787 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATTACCTC  | 10788 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTATTAA  | 10789 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTCAATT  | 10790 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTCTTGG  | 10791 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTTTCATA | 10792 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TATTTTCCCA | 10793 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TATTTTAAA  | 10794 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TATTTTGA   | 10795 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TATTTTAA   | 10796 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCAAAAATGG | 10797 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAAAAGCTG | 10798 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAAAATTGC | 10799 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAAACAAAA | 10800 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAAACCGCT | 10801 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TCAAAGCACT | 10802 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAAAGCATT | 10803 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAAAGCCGT | 10804 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAAATAGAG | 10805 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCAAATCCAA | 10806 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |       |         |         |         |
|---|---|---|---|-------------|-------|---------|---------|---------|
| 0 | 0 | 0 | 1 | TCAAATCTTA  | 10807 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TCAAATTAAC  | 10808 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCAACAAAAG  | 10809 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAACATCAG  | 10810 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCAACATCCT  | 10811 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAACCGTGG  | 10812 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCAACTGGAT  | 10813 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAACTTACT  | 10814 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAACTTTAA  | 10815 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCAAGAAAGT  | 10816 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAAGAACGG  | 10817 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCAAGAAAGTA | 10818 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAAGATTGT  | 10819 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAAGCACCT  | 10820 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAAGCCCTC  | 10821 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAAGCTTGT  | 10822 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAAGGAGTA  | 10823 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAAGGCCGG  | 10824 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCAAGTAGCA  | 10825 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 0 | TCAATAGAGG  | 10826 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAATCAGTT  | 10827 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAATCATAT  | 10828 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAATCTTGC  | 10829 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAATCTTTG  | 10830 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCAATGCACA  | 10831 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAATTAATG  | 10832 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | TCAATTCCTT  | 10833 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAATTCGAA  | 10834 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |       |         |         |         |
|---|---|---|---|-------------|-------|---------|---------|---------|
| 0 | 0 | 0 | 1 | TCAATTCTGT  | 10835 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCACAACACC  | 10836 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCACAATTTA  | 10837 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TCACCAGAGT  | 10838 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TCACCCGTAC  | 10839 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCACCGCATC  | 10840 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCACCGGGC   | 10841 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCACCGTACA  | 10842 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCACCTTGCA  | 10843 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCACGATTTA  | 10844 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCACGGCCAA  | 10845 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCACGGGTAC  | 10846 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCACTCGCCA  | 10847 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCACTCTGCT  | 10848 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCACTGACGC  | 10849 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCACTGGCCT  | 10850 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCACTTCATT  | 10851 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCACTTCCGC  | 10852 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCACTTGAGG  | 10853 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TCACTTGTTT  | 10854 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TCACITTTGAA | 10855 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCAGAAACGC  | 10856 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAGAAAGCA  | 10857 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCAGAAGAGT  | 10858 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TCAGAAGTGG  | 10859 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCAGAATATA  | 10860 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCAGAATCTT  | 10861 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCAGAGACAG  | 10862 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
| 0 | 1 | 0 | TCAGAGATAA | 10863 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCAGAGGAAA | 10864 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCAGATATGA | 10865 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCAGATGTTG | 10866 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCAGATTGGA | 10867 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCAGATTTC  | 10868 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCAGCAAAAG | 10869 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCAGCAATAA | 10870 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCAGCCTGCA | 10871 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCAGCGTATG | 10872 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCAGGATCGA | 10873 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCAGGGACTC | 10874 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCAGGTGCTG | 10875 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCAGTAACCC | 10876 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCAGTAAGCC | 10877 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCAGTAGAAC | 10878 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCAGTATTC  | 10879 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCAGTCGCAA | 10880 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCAGTGTATC | 10881 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCATAACTGA | 10882 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCATAATCTT | 10883 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCATAGAATT | 10884 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCATAGCACT | 10885 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCATCAAAAA | 10886 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCATCAATGA | 10887 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCATCACCGA | 10888 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCATCACCTA | 10889 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCATCCAGAT | 10890 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |       |         |         |         |
|---|---|---|-------------|-------|---------|---------|---------|
| 0 | 0 | 1 | TCATCGAAAA  | 10891 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCATCGGAAG  | 10892 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCATCGTAGT  | 10893 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCATCGTATG  | 10894 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCATCGTCAG  | 10895 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCATCGTCAT  | 10896 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCATCTACAT  | 10897 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCATCTGTGA  | 10898 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCATCTGTTT  | 10899 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCATCTTACA  | 10900 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCATCTTCTT  | 10901 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCATCTTTAC  | 10902 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCATTAAACA  | 10903 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCATTCAAAA  | 10904 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCATTCAACG  | 10905 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCATTCAAGT  | 10906 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCATTGAGAA  | 10907 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCATTTCGAA  | 10908 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCATTTTATA  | 10909 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCCAAAAAAA  | 10910 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCCAAAAGGC  | 10911 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCCAAAGGCA  | 10912 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCCAAAGGCC  | 10913 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCCAAAGTGC  | 10914 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCCAACTACC  | 10915 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCCAAAGCAAT | 10916 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCCAAAGCATT | 10917 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCCAAAGGAGG | 10918 | 0.0     | #DIV/0! | 0.0     |





Table 5, cont.

|   |   |   |   |       |         |         |         |
|---|---|---|---|-------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | 10976 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 10977 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 10978 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 10979 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 10980 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 10981 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 10982 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 10983 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 10984 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 10985 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 10986 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 10987 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 10988 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 10989 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 10990 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 10991 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 10992 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 10993 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 10994 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 10995 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 10996 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 10997 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 10998 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 10999 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 11000 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11001 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11002 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
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| 1 | 0 | 0 | TCCTAGGCTG | 11005 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCCTCAGTCT | 11006 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCCTCCATAG | 11007 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCCTCCCACC | 11008 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCCTCGACAT | 11009 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCCTCGTGGG | 11010 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCCTCTCCAG | 11011 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCCTGCAATG | 11012 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCCTGGTATA | 11013 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCCTGTCTCC | 11014 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCCTGTCTTG | 11015 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCCTTACCCA | 11016 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCCTTCAACT | 11017 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCCTTCAGTT | 11018 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCCTTCTAGC | 11019 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCCTTCTGGG | 11020 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCCTTGACCG | 11021 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCCTTGAGAA | 11022 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCCTTGCTAA | 11023 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCCTTGTTAT | 11024 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCCTTTCAA  | 11025 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCCTTTTCGA | 11026 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCCTTTTGA  | 11027 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCGAAAAAA  | 11028 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCGAAACGTA | 11029 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCGAAAGAAG | 11030 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
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| 1 | 0 | 0 | 0 | TCGACGTGGT | 11034 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCGACGTGTC | 11035 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCGACTACAT | 11036 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGAGGTGTG | 11037 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGATACCGG | 11038 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGATATCTC | 11039 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGATCATCT | 11040 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGATGAATT | 11041 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGATTAAGA | 11042 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCGCAACAAT | 11043 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCGCAATGTG | 11044 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCGCAGGTAA | 11045 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCATTGT  | 11046 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCCATTAA | 11047 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCCCTTTG | 11048 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGCCGCTCA | 11049 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCCGTACA | 11050 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCCGTGTT | 11051 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGCCCTTAA | 11052 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGCCCTTTT | 11053 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGCGATGAG | 11054 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCGTGAAA | 11055 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TCGCTCATTT | 11056 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCTGCCGA | 11057 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGCTGGGCA | 11058 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
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| 0 | 1 | 0 | TCGCTTAAAT | 11060 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCGCTTCATC | 11061 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCGGAACAA  | 11062 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCGGACAGAA | 11063 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCGGAGATGG | 11064 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCGGATCCTA | 11065 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCGGCATTAA | 11066 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCGGCGAATG | 11067 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCGGCGAGAG | 11068 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCGGCGCTCT | 11069 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCGGCGTGCG | 11070 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCGGGAAAT  | 11071 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCGGGCATTG | 11072 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCGGGCTAGT | 11073 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCGGGGACGG | 11074 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCGGGGTACC | 11075 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCGGTAATAA | 11076 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCGTACGTCA | 11077 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCGTACTGGT | 11078 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TCGTACTGTT | 11079 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCGTAGAAAA | 11080 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCGTAGTAAA | 11081 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCGTCAACAA | 11082 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TCGTCCGTTT | 11083 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCGTCTATTT | 11084 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCGTCTTTTC | 11085 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TCGTGAATGA | 11086 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |   |             |       |         |         |         |
|---|---|---|---|-------------|-------|---------|---------|---------|
| 1 | 0 | 0 | 0 | TCGTGCTGTG  | 11087 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCGTGGTGGG  | 11088 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGTGTGGTA  | 11089 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCGTGTAA    | 11090 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCGTTAGAAG  | 11091 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCGTTCAACT  | 11092 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCGTTTCATCT | 11093 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCGTTGGAGC  | 11094 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCGTTTACTG  | 11095 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCGTTTGGCC  | 11096 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCTAAGAAA   | 11097 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTAAGAACT  | 11098 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTAAGACCG  | 11099 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TCTAAGATGG  | 11100 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTAAGTATA  | 11101 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTAAGTCCC  | 11102 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTAAGTCTG  | 11103 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTAATTACC  | 11104 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTACAACTT  | 11105 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTACCGATA  | 11106 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTACCTCGA  | 11107 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTACTAAAT  | 11108 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTACTTTAC  | 11109 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCTAGAAGTT  | 11110 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTAGCGCCA  | 11111 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTAGCGTAC  | 11112 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTAGCTCTC  | 11113 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTAGGAAGT  | 11114 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
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| 0 | 0 | 1 | 0 | TCTAGGGTCC | 11116 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTAGTTTAA | 11117 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTATATGGT | 11118 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTATGAAAT | 11119 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TCTATGTCTA | 11120 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTATGTGGT | 11121 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTATGTGTG | 11122 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTCAACTGG | 11123 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTCAAGCTG | 11124 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTCAAGGTA | 11125 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTCAGTAAT | 11126 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTCCACCTA | 11127 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCTCCACTGG | 11128 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTCCAGAGA | 11129 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTCCAGGAA | 11130 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTCCATAAC | 11131 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTCCCAGAG | 11132 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTCCCCAAG | 11133 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTCCGCGGA | 11134 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTCCTATAA | 11135 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTCCTCGTT | 11136 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTCGTACAT | 11137 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTCTAAAGG | 11138 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTCTACAGG | 11139 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTCTACGGG | 11140 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TCTCTACTTT | 11141 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTCTATAAA | 11142 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |       |         |         |         |
|---|---|---|---|-------------|-------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | TCTCTCTTGG  | 11145 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTCTGACGA  | 11146 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTCTGCCAG  | 11147 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTCTGCTGG  | 11148 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTCTTTGCC  | 11149 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTGAAAAA   | 11150 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTGAAATTG  | 11151 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTGAAGACC  | 11152 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTGACGTGC  | 11153 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTGACTGGG  | 11154 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTGACTTCC  | 11155 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTGAGATGG  | 11156 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTGATCTTG  | 11157 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTGCAAATA  | 11158 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTGCCGTGAA | 11159 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTGCTGCTG  | 11160 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTGGATCTC  | 11161 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TCTGGCTGGC  | 11162 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TCTGGGGAAA  | 11163 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TCTGGTGTGA  | 11164 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TCTGTCGAC   | 11165 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTGTCGAGA  | 11166 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 0 | 1 | TCTGTGTCCA  | 11168 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTGTTGACA  | 11169 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TCTGTTGGGG  | 11170 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
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| 0 | 1 | 0 | TCTTACATAT | 11174 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCTTACCACA | 11175 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCTTACCCAT | 11176 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | TCTTATTATC | 11178 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCTTCAAAGA | 11179 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCTTCAACTT | 11180 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCTTCATTAC | 11181 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TCTTCCAAAA | 11182 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TCTTCCCACT | 11183 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCTTCGACAA | 11184 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCTTCTCGTC | 11185 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TCTTCTTCAG | 11186 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCTTCTTCTT | 11187 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCTTGAAAAA | 11188 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCTTGAACTG | 11189 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TCTTGACCGT | 11190 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCTTGAGAAA | 11191 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCTTGAGAAC | 11192 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TCTTGAGGAT | 11193 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 1 | 0 | TCTTGAGGAA | 11196 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCTTGAGAAA | 11197 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TCTTGAGGTT | 11198 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

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| 1 | 0 | 0 | 0 | 1202 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | 1203 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 1204 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | 1205 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 1206 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 1207 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 1208 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 1209 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 1210 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 1211 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 1212 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 1213 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | 1214 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 1215 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 1216 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 1 | 1217 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 1218 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 1219 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 1220 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 1221 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | 1222 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | 1223 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 1224 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 1225 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 1226 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |              |       |         |         |         |
|---|---|---|--------------|-------|---------|---------|---------|
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| 0 | 0 | 1 | TGACAACTGT   | 11230 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGACAAAGAT   | 11231 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGACAAAGCCT  | 11232 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGACACATTC   | 11233 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGACAGGAAA   | 11234 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGACATAAGT   | 11235 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGACCAAACA   | 11236 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGACGGCTGA   | 11237 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGACGGTTTG   | 11238 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGACTCGTTG   | 11239 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGACTCTTGG   | 11240 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGACTGGTAT   | 11241 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGAGATCCGA   | 11242 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGAGATCGGG   | 11243 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGAGACAAT    | 11244 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGAGCATATC   | 11245 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGAGCCTTCG   | 11246 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGAGCGTTGA   | 11247 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGAGCTTAGA   | 11248 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGAGGGTGTGTA | 11249 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGAGGTAAGT   | 11250 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGAGGTGATA   | 11251 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGAGTAGGAG   | 11252 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGAGTATATA   | 11253 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGAGTGGTCA   | 11254 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
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| 0 | 0 | 0 | 1 | TGATAATGAT | 11257 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGATAATGTC | 11258 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGATACCAAG | 11259 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGATAGCAGT | 11260 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGATATCAGA | 11261 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TGATATCAGT | 11262 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGATATGTAA | 11263 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGATCAAAAA | 11264 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 0 | 0 | 1 | TGATCGTTTG | 11267 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | TGATCTTAAG | 11269 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGATCTTCCT | 11270 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TGATGACTCT | 11271 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGATGGTCGG | 11272 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGATTATACA | 11273 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGATTATACC | 11274 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TGATTATCCC | 11275 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGATTATTAG | 11276 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGATTCGCCA | 11277 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGATTCCTCT | 11278 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGATTCCTGT | 11279 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGATTGCCGT | 11280 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGATTGTGTG | 11281 | #DIV/0! | 0.0     | #DIV/0! |
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Table 5, cont.

|   |   |   |   |            |       |         |         |         |
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| 1 | 0 | 0 | 0 | TGCACAGAAC | 11285 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGCACCTCTT | 11286 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCACTAGTA | 11287 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCAGAAGAG | 11288 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGCAGAGAAC | 11289 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGCAGCGGCT | 11290 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGCAGTCAAA | 11291 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGCAGTTTAG | 11292 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGCATATCCG | 11293 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGCATCACCA | 11294 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCATCTTTA | 11295 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCATTATTG | 11296 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGCATTGATA | 11297 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCCAACAAA | 11298 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCCAAGGAT | 11299 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCCACGAAC | 11300 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | TGCCCGTACA | 11305 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCCCTGTGG | 11306 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGCCCTTGAT | 11307 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TGCCGACTAC | 11308 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGCCGCCCTC | 11309 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TGCCGTCCAT | 11310 | 0.0     | #DIV/0! | 0.0     |



Table 5, cont.

|   |   |   |            |       |         |         |         |
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| 0 | 0 | 1 | TGCCTATTAA | 11313 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGCCTCAGCG | 11314 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGCCTCTGGG | 11315 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGCCTGGACT | 11316 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGCCTGGTAC | 11317 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGCCTTATGT | 11318 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGCCTTCGTC | 11319 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGCCTTGTGG | 11320 | 0.0     | 0.0     | 0.0     |
| 0 | 0 | 1 | TGCCTTTGTG | 11321 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGCCITTTCA | 11322 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGCGACTCAA | 11323 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGCGAGATAC | 11324 | #DIV/0! | 0.0     | 0.0     |
| 0 | 0 | 1 | TGCGCAAACT | 11325 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGCGCAGCAG | 11326 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGCGCTTTCT | 11327 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGCGGACCTT | 11328 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGCGGGTCAC | 11329 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGCGTCCAGC | 11330 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGCGTGCAAT | 11331 | 0.0     | #DIV/0! | 0.0     |
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| 0 | 0 | 1 | TGCGTGGTGG | 11335 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGCGTTAAAA | 11336 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGCGTTAAAT | 11337 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGCGTTATGG | 11338 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

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| 0 | 1 | 0 | 0 | TGCTATTTC A | 11342 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TGCTCAAAA   | 11343 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGCTCAGCGC  | 11344 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCTCTTCGC  | 11345 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGCTGACAAC  | 11346 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGCTGAGAAC  | 11347 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCTGCCCGC  | 11348 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCTGTCA CA | 11349 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCTGTTGTT  | 11350 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 0 | TGCTTCCCT   | 11353 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGCTTGTTAT  | 11354 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGGAAC TACC | 11355 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGAAC TCT  | 11356 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGAAGAGGA  | 11357 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGAAGCTAG  | 11358 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGAAGCTTC  | 11359 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGGAATGGAC  | 11360 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 1 | TGGACACCTT  | 11363 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGACTACCG  | 11364 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGGAGATGT   | 11365 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGAGATTAA  | 11366 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

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| 0 | 0 | 1 | 1 | TGGAGTATGG  | 11371 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGAGTCCCT  | 11372 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGGAGTCGTG  | 11373 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGAGTGAGA  | 11374 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGATAAAGA  | 11375 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGATCATAT  | 11376 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGATGAACC  | 11377 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGATGACGA  | 11378 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGGATTGTTG  | 11379 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGGCACCCCTG | 11380 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGCACCTAG  | 11381 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGGCACTTGG  | 11382 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGGCAGTCTA  | 11383 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGGCATCCTG  | 11384 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGGCATTCTC  | 11385 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGGCCACCAG  | 11386 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGCCACCAT  | 11387 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGGCGAAAAA  | 11388 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGGCGAAGTC  | 11389 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGGCGACAAG  | 11390 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGCGATATT  | 11391 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGGCGATGGA  | 11392 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGGCGCCGCA  | 11393 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGGCGTGGTG  | 11394 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |             |       |         |         |         |
|---|---|---|---|-------------|-------|---------|---------|---------|
| 0 | 0 | 1 | 0 | TGGCTAATAA  | 11395 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TGGCTCTTTG  | 11396 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TGGCTGGTTG  | 11397 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGGCTTAAA   | 11398 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | TGGCTTTGGA  | 11399 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TGGGAATTT   | 11400 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 1 | 0 | 0 | TGGGAACGAC  | 11401 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TGGGACACTG  | 11402 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGAGGTGA  | 11403 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGAGTACC  | 11404 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGATGGAC  | 11405 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGCTATCT  | 11406 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGCTTGA   | 11407 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGGAAC TG | 11408 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TGGGGACTCG  | 11409 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGGCTTGG  | 11410 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TGGGGTGAGG  | 11411 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGGGGTGCGA  | 11412 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TGGGGTTGTG  | 11413 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TGGGTAAGCA  | 11414 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGGGTAGTGA  | 11415 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TGGGTGCTCT  | 11416 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 1 | 0 | 0 | TGGGTGTCTA  | 11417 | 0.0     | #DIV/0! | 0.0     |
| 1 | 1 | 0 | 0 | TGGGTGTGGA  | 11418 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TGGGTTGGGA  | 11419 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TGGGTTGGTG  | 11420 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGTTGGG   | 11421 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TGGGTTTTTG  | 11422 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
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| 1 | 0 | 0 | TGGTAAGGTG | 11424 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGGTACTAGA | 11425 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGGTACTATT | 11426 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGGTAGAGAA | 11427 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGGTAGCGGT | 11428 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGGTATTAGG | 11429 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGGTCATAAA | 11430 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGGTCATTAA | 11431 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGGTCCCACA | 11432 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGGTCGAAGA | 11433 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGGTCGAGCC | 11434 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGGTCGCTGT | 11435 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGGTCGGAGA | 11436 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGGTCTTCTA | 11437 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGGTGAATAA | 11438 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGGTGAATG  | 11439 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGGTGAATTT | 11440 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGGTGACTGT | 11441 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGGTGATTTA | 11442 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGGTGCGGCT | 11443 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGGTGGAATA | 11444 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGGTGGAAT  | 11445 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGGTGAGTC  | 11446 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGGTGTTAGT | 11447 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGGTTAAAAA | 11448 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGGTTAAAT  | 11449 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGGTTGAAGG | 11450 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |             |       |         |         |         |
|---|---|---|---|-------------|-------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | TGGTTTAAAA  | 11452 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTAAATTT   | 11453 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTAAAGTTA  | 11454 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTAACCTTT  | 11455 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTAACGTTT  | 11456 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGTAAGAACC  | 11457 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGTAAGAACT  | 11458 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGTAAGTTGG  | 11459 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTAATGATA  | 11460 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TGTAATTAAC  | 11461 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGTACCAGTT  | 11462 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTACGCAGA  | 11463 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TGTACGCCGT  | 11464 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TGTACTACGA  | 11465 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TGTACTGATG  | 11466 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGTAGCTACT  | 11467 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTATAATTT  | 11468 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGTATACCTA  | 11469 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TGTATATCTA  | 11470 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TGTATATTTT  | 11471 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGTATCTGGG  | 11472 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TGTATGAAAA  | 11473 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTATGTAAT  | 11474 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTATGTACA  | 11475 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTATTATAT  | 11476 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TGTATTTCATA | 11477 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TGTATTTTAA  | 11478 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |       |         |         |         |
|---|---|---|-------------|-------|---------|---------|---------|
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| 0 | 0 | 1 | TGTCAAGTGG  | 11481 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGTCAATCCA  | 11482 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGTCAGAAAA  | 11483 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGTCAATTTG  | 11484 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGTCCAAATA  | 11485 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGTCCACTGC  | 11486 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGTCCCGATC  | 11487 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGTCCTGTAT  | 11488 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGTCGACGAC  | 11489 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGTCGCTGTG  | 11490 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGTCGGAAT   | 11491 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGTCGGGTGG  | 11492 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGTCGTGCTG  | 11493 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGTCGTGGCG  | 11494 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGTCGTGGTA  | 11495 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGTCGTGGTC  | 11496 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGTCGTTGTG  | 11497 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGTCATATCAT | 11498 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGTCCTCAGCA | 11499 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGTCCTCGCGA | 11500 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGTCCTCTGT  | 11501 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 4 | TGTCCTGGTGG | 11502 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGTCCTGTATT | 11503 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGTCCTTTGGT | 11504 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGTGACGCAG  | 11505 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGTGACTAGT  | 11506 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |       |         |         |         |
|---|---|---|-------------|-------|---------|---------|---------|
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| 1 | 0 | 0 | TGTGAGTGAA  | 11508 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGTGATTAA   | 11509 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGTGCAGAGG  | 11510 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGTGCCATCG  | 11511 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGTGCCCTAAT | 11512 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGTGCGAAAA  | 11513 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGTGCTTGAT  | 11514 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGTGGATATG  | 11515 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGTGGATTCC  | 11516 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGTGGCTCGA  | 11517 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TGTGGGAAC   | 11518 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TGTGGGTGTA  | 11519 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TGTGGTCACT  | 11520 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TGTGTAAGAA  | 11521 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGTGTAGTCT  | 11522 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGTGTATATT  | 11523 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGTGTATGGA  | 11524 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TGTGTATTTA  | 11525 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TGTGTCGTTG  | 11526 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TGTGCTTAC   | 11527 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGTGTTAATA  | 11528 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | TGTTAAGTAG  | 11532 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TGTTAATTAG  | 11533 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TGTTATAGTT  | 11534 | #DIV/0! | #DIV/0! | #DIV/0! |





Table 5, cont.

|   |   |   |   |   |   |            |       |         |         |         |
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| 1 | 0 | 0 | 0 | 0 | 0 | TTAAAAATAA | 11565 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | 0 | TTAAATATG  | 11566 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | 0 | TTAAATGGG  | 11567 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 1 | 0 | 0 | 0 | TTAAACCCCT | 11568 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | 0 | 0 | TTAAACGGTA | 11569 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 0 | 0 | 1 | 1 | 0 | TTAACTACC  | 11571 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | 0 | TTAACTGAG  | 11572 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 0 | 0 | 0 | TTAAAGAAA  | 11573 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 1 | 0 | 0 | 0 | TTAAAGTTTT | 11574 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | 0 | TTAAATTCAT | 11575 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | 0 | 0 | 0 | TTAACACAA  | 11577 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 0 | 0 | TTAACAACTA | 11578 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 1 | 0 | 0 | 0 | TTACGAGC   | 11579 | 0.0     | 0.0     | #DIV/0! |
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| 0 | 0 | 0 | 1 | 1 | 0 | TTAAGCTATC | 11587 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 1 | 0 | 0 | 0 | 0 | 0 | TTAAGTATCG | 11590 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |   |   |       |         |         |         |
|---|---|---|---|---|---|-------|---------|---------|---------|
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| 0 | 0 | 0 | 1 | 0 | 0 | 11593 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 0 | 0 | 0 | 11595 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 11596 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 11597 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 11598 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 11599 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 0 | 0 | 1 | 0 | 0 | 11602 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | 0 | 11603 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 0 | 0 | 0 | 11605 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 0 | 0 | 11606 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 11607 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | 0 | 11608 | #DIV/0! | 0.0     | #DIV/0! |
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| 0 | 0 | 0 | 1 | 0 | 0 | 11612 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 0 | 0 | 0 | 11615 | #DIV/0! | 0.0     | #DIV/0! |
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Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
| 0 | 0 | 0 | 1 | TTACTTTTGA | 11619 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TTACTTTTGA | 11620 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 0 | 1 | 0 | TTAGAATAAG | 11622 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGACCTTT | 11623 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TTAGACGCGG | 11624 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGAGGTTG | 11625 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGAGTCAA | 11626 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGATATTC | 11627 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TTAGATGAAG | 11628 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGATTAT  | 11629 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TTAGCAATAT | 11630 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TTAGCCCTAT | 11631 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTAGCGAAAT | 11632 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | TTAGCTGCCA | 11633 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGCTGCTG | 11634 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGCTTCTA | 11635 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGGAAGTT | 11636 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTAGGTTCTA | 11637 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TTAGTAGAAT | 11638 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TTAGTCTCTA | 11639 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | TTAGTCTGAC | 11640 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTAGTGAATA | 11641 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TTAGTGAAGA | 11642 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTAGTGAATA | 11643 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | TTAGTGTCAA | 11644 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | TTAGTTCGAA | 11645 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | TTAGTTTATA | 11646 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
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| 1 | 0 | 0 | TTAGTTTCTC | 11649 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTATAAGAAG | 11650 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTATAAGAAT | 11651 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTATAAGTCA | 11652 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTATAATGAA | 11653 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTATAATTGA | 11654 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTATACTATT | 11655 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATAGAATG | 11656 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATAGATGC | 11657 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATAGATTT | 11658 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTATAGTATA | 11659 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATAGTGAA | 11660 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATATATAT | 11661 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATATTGAC | 11662 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATCAAAAA | 11663 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTATCAAAGG | 11664 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTATCAAATG | 11665 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATCATAAT | 11666 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTATCCTTTG | 11667 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTATCGTCAA | 11668 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTATCGTGTG | 11669 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTATCGTGTT | 11670 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATCGTTGG | 11671 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATCTATAA | 11672 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTATCTATTT | 11673 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATGAAGGA | 11674 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |             |       |         |         |         |
|---|---|---|-------------|-------|---------|---------|---------|
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| 1 | 0 | 0 | TTATGGATCT  | 11678 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATGGCTAT  | 11679 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATGGGTGC  | 11680 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTATGGTAGG  | 11681 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTATTAATAA  | 11682 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATTAATGA  | 11683 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTATTACCCA  | 11684 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATTATGCC  | 11685 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTATTCAAGA  | 11686 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTATTCGCCA  | 11687 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTATTGAGGC  | 11688 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATTGATAT  | 11689 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTATTGATGC  | 11690 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTATTTCTGT  | 11691 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTATTTCTTT  | 11692 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTATTTTGCC  | 11693 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTATTTTTC   | 11694 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTATTTTTCG  | 11695 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTCAAAAAA   | 11696 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTCAAAAATC  | 11697 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTCAAAAAGC  | 11698 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTCAAAAAGAG | 11699 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTCAAAAAGCA | 11700 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTCAAAAAGGA | 11701 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTCAACAAGG  | 11702 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |              |       |         |         |         |
|---|---|---|--------------|-------|---------|---------|---------|
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| 1 | 0 | 0 | TTC AAG CCC  | 11705 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTC AAG GAGA | 11706 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTC AAG TAA  | 11707 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTC AAG TGC  | 11708 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTC AAT CTT  | 11709 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTC ACA ATGC | 11710 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTC ACATAAG  | 11711 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTC ACCAATT  | 11712 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTC ACCCAAC  | 11713 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTC ACCTAAG  | 11714 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTC ACTGAAT  | 11715 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTC ACTTAAC  | 11716 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTC ACTTTCA  | 11717 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTC ACTTTTT  | 11718 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTC AGAAAA   | 11719 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTC AGAAAGG  | 11720 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTC AGCGGAT  | 11721 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTC AGCTTGA  | 11722 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTC AGGAAAA  | 11723 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTC AGGTCAC  | 11724 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTC AGGTTTT  | 11725 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTC AGTGAAA  | 11726 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTC AGTTCGA  | 11727 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTC ATAAGGA  | 11728 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTC ATACCAA  | 11729 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTC ATTCACT  | 11730 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

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Table 5, cont.

|   |   |   |             |       |         |         |         |
|---|---|---|-------------|-------|---------|---------|---------|
| 0 | 0 | 1 | TTCGAATTAG  | 11759 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | TTCGAGTTTG  | 11761 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTCGATCCAA  | 11762 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTCGATCTTT  | 11763 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTCGCAACTT  | 11764 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTCGCTAGAA  | 11765 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTCGCTGATT  | 11766 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTCGCTGTCC  | 11767 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTCGCTTTTT  | 11768 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTCGGAGATT  | 11769 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTCGGCGGTC  | 11770 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTCGGGCCAC  | 11771 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTCGGGGTCA  | 11772 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTCGGGGTCCA | 11773 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTCGGGTCTC  | 11774 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTCGTAGTAG  | 11775 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTCGTATTAC  | 11776 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTCGTGATCC  | 11777 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTCGTAACT   | 11778 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTCGTTTACA  | 11779 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTCGTTTCATT | 11780 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTCGTTCCCT  | 11781 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTCATAATATA | 11782 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTCACACAACA | 11783 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTCATGCTT   | 11784 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTCATGTCT   | 11785 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTCATTAGC   | 11786 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |       |         |     |         |     |         |
|---|---|---|---|-------|---------|-----|---------|-----|---------|
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| 0 | 1 | 0 | 0 | 11789 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11790 | 0.0     |     | #DIV/0! |     | 0.0     |
| 0 | 1 | 0 | 0 | 11791 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11792 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11793 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11794 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 0 | 0 | 1 | 0 | 11795 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11796 | 0.0     |     | #DIV/0! |     | 0.0     |
| 1 | 0 | 0 | 0 | 11797 | 0.0     |     | #DIV/0! |     | 0.0     |
| 0 | 0 | 1 | 1 | 11798 | #DIV/0! |     | #DIV/0! |     | #DIV/0! |
| 0 | 0 | 1 | 1 | 11799 | #DIV/0! |     | #DIV/0! |     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11800 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11801 | 0.0     |     | #DIV/0! |     | 0.0     |
| 0 | 1 | 0 | 0 | 11802 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 0 | 0 | 1 | 0 | 11803 | #DIV/0! |     | #DIV/0! |     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11804 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 0 | 0 | 1 | 0 | 11805 | #DIV/0! |     | #DIV/0! |     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11806 | 0.0     |     | #DIV/0! |     | 0.0     |
| 1 | 0 | 0 | 0 | 11807 | 0.0     |     | #DIV/0! |     | 0.0     |
| 1 | 0 | 0 | 0 | 11808 | 0.0     |     | #DIV/0! |     | 0.0     |
| 0 | 1 | 0 | 0 | 11809 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 0 | 0 | 1 | 1 | 11810 | #DIV/0! | 0.0 |         |     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11811 | 0.0     |     | #DIV/0! |     | 0.0     |
| 0 | 0 | 1 | 1 | 11812 | #DIV/0! |     | #DIV/0! |     | #DIV/0! |
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| 1 | 0 | 0 | 0 | 11814 | 0.0     |     | #DIV/0! |     | 0.0     |

Table 5, cont.

|   |   |   |       |         |         |         |
|---|---|---|-------|---------|---------|---------|
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| 1 | 0 | 0 | 11817 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 11818 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 11819 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 11820 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 11821 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 11822 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 11823 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 11824 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 11825 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 11826 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 11827 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 11828 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 11829 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 11830 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 11831 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 11832 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 11833 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 11834 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 11835 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 11836 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 11837 | #DIV/0! | #DIV/0! | #DIV/0! |
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| 0 | 1 | 0 | 11839 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 11840 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 11841 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 11842 | #DIV/0! | 0.0     | #DIV/0! |



Table 5, cont.

|   |   |   |   |   |             |       |         |         |         |
|---|---|---|---|---|-------------|-------|---------|---------|---------|
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| 0 | 1 | 0 | 0 | 0 | TTGCCCAGTC  | 11875 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTGCCCATTT  | 11876 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 1 | TTGCCCCACA  | 11877 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTGCCGGTCT  | 11878 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 1 | TTGCCCGTACA | 11879 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTGCCGTATC  | 11880 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | TTGCCTCAGT  | 11881 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | TTGCCTCTTT  | 11882 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTCCGATAGA  | 11883 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 1 | TTCCGTC AAT | 11884 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | TTGCTAGGCA  | 11885 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | TTGCTAGTCT  | 11886 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGCTCCACC  | 11887 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGCTCTGGG  | 11888 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGCTCTTTG  | 11889 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGCTGATCT  | 11890 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | TTGCTGGTGA  | 11891 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGCTGTGG   | 11892 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGCTTCATT  | 11893 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGCTTTGGG  | 11894 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTGAAAAAT   | 11895 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTGAAAAGA   | 11896 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 0 | 1 | TTGGAAC TAC | 11897 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 1 | TTGGAAGGAT  | 11898 | #DIV/0! | #DIV/0! | #DIV/0! |



Table 5, cont.

|   |   |   |             |       |         |         |         |
|---|---|---|-------------|-------|---------|---------|---------|
| 0 | 0 | 1 | TTGGGCTAGG  | 11927 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTGGGGAATT  | 11928 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTGGGGTTGG  | 11929 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTGGGTAAT   | 11930 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTGGGTAGAA  | 11931 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTGGGTTAGA  | 11932 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTGGTAAATC  | 11933 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTGGTAACCT  | 11934 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTGGTAGTGA  | 11935 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTGGTAGTGT  | 11936 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTGGTATAAT  | 11937 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTGGTCCAGT  | 11938 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTGGTCITTG  | 11939 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTGGTGCAGA  | 11940 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTGGTTTTCA  | 11941 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTGGTTTTGG  | 11942 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTGTAAGAAG  | 11943 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTGTAATACG  | 11944 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTGTAATCTA  | 11945 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTGTAATTAC  | 11946 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTGTACCAGG  | 11947 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTGTACCTTT  | 11948 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTGTACTGAA  | 11949 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTGTACTTTG  | 11950 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTGTAGTATA  | 11951 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTGTATCCTT  | 11952 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTGTATTAAAG | 11953 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTGTCAAAAT  | 11954 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |       |         |         |         |
|---|---|---|---|-------|---------|---------|---------|
| 0 | 1 | 0 | 0 | 11955 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11956 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 11957 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 11958 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 11959 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 11960 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | 11961 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 11962 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 11963 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 11964 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 11965 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11966 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 11967 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 11968 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 11969 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 11970 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11971 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11972 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 11973 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11974 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 11975 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 11976 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 11977 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 11978 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 11979 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | 11980 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 11981 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | 11982 | #DIV/0! | #DIV/0! | #DIV/0! |





Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
| 0 | 1 | 0 | TTTACATAAA | 12011 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTACCCAGT | 12012 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTACCGATC | 12013 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTACCGCAA | 12014 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTACCGCTT | 12015 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTTACCGGTT | 12016 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTACCTGTT | 12017 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTACGAAGA | 12018 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTACGATGA | 12019 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTACGCCCC | 12020 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTACGTATT | 12021 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTACTACTG | 12022 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTACTATAT | 12023 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTACTTACT | 12024 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTACTTTTG | 12025 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTAGAAGAG | 12026 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTAGAATGG | 12027 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTTAGATCCG | 12028 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTTAGCAGTA | 12029 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTAGCCAAT | 12030 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTAGCTACC | 12031 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTAGTATCT | 12032 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTTAGTATTT | 12033 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTTAGTCAAA | 12034 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTTAGTGAGA | 12035 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTATATAAT | 12036 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTATCACCA | 12037 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTATCTCCC | 12038 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |             |       |         |         |         |
|---|---|---|-------------|-------|---------|---------|---------|
| 0 | 1 | 0 | TTTTATGATAA | 12039 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTATGTGTA  | 12040 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTCAAAGAG  | 12041 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTCAAAGGG  | 12042 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTTCAACAAG  | 12043 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTTCAACTCG  | 12044 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTTCAAGAAA  | 12045 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTCAATAAA  | 12046 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTCAACAGGA | 12047 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTCAACCATC | 12048 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTCAGCGTT  | 12049 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTTCAGGAGA  | 12050 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTCAGGCTA  | 12051 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTTCATAAAT  | 12052 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTCATCGAA  | 12053 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTCATTATC  | 12054 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTCATTGAA  | 12055 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTCCAATC   | 12056 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTCCAAGTC  | 12057 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTTCCAGAAG  | 12058 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTTCCCGAGT  | 12059 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTTCCGCGCT  | 12060 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | TTTCCGCGGC  | 12061 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTCCGCTAA  | 12062 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTCCCTAGAA | 12063 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTCCCTATCT | 12064 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTCCCTATGA | 12065 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | TTTCCCTGCGC | 12066 | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
| 0 | 1 | 0 | 0 | TTTCCTTTTA | 12067 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTCGCCCTC | 12068 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTCGGGAAC | 12069 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTCGGTTTT | 12070 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCGCTCC  | 12071 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCGTGGTG | 12072 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCTAAGCT | 12073 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCTACTGG | 12074 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTCTCAAGG | 12075 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTCTCATTT | 12076 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTCTGAGTG | 12077 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTCTGATGG | 12078 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCTGCCCC | 12079 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCTGGACA | 12080 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCTGGTGG | 12081 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTCTGTCCG | 12082 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTCTTAGAT | 12083 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTCTTATCC | 12084 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTCTTCGAG | 12085 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTCTTGCT  | 12086 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTCTTTCCC | 12087 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTCTTTGAT | 12088 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTGAAGATG | 12089 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTGAAGACG | 12090 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TTTGAAGCCT | 12091 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTGACAACA | 12092 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTGACAAGT | 12093 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTGACCGCA | 12094 | 0.0     | #DIV/0! | 0.0     |

Table 5, cont.

|   |   |   |   |   |             |       |         |         |         |         |
|---|---|---|---|---|-------------|-------|---------|---------|---------|---------|
| 0 | 0 | 1 | 0 | 0 | TTTGACGGTG  | 12095 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTTGAGAACT  | 12096 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTTGAGTCAG  | 12097 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTTGATATTA  | 12098 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | TTTGATTACT  | 12099 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | TTTGATTATG  | 12100 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTTGCAACAG  | 12101 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTTGCACCTT  | 12102 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTTGCATATG  | 12103 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | TTTGCCAAGT  | 12104 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | TTTGCCGTAG  | 12105 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | TTTGCGAACCC | 12106 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 0 | 0 | TTTGCTACAT  | 12107 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTTGCTTCAC  | 12108 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | TTTGCTTCCT  | 12109 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | TTTGCTTTAA  | 12110 | #DIV/0! | 0.0     | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTTGGAAT    | 12111 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | TTTGGAGACG  | 12112 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | TTTGGAGAGA  | 12113 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 0 | 0 | 1 | 1 | TTTGGAGTGA  | 12114 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTTGGCACGT  | 12115 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | 0 | TTTGGCAGAT  | 12116 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | 0 | TTTGGCATT   | 12117 | #DIV/0! | 0.0     | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | 0 | TTTGGCGATA  | 12118 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTTGGTACTT  | 12119 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTTGGTAGTG  | 12120 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | 0 | TTTGGTGATA  | 12121 | 0.0     | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 0 | 1 | 1 | TTTGTACAAG  | 12122 | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! |

Table 5, cont.

|   |   |   |            |       |         |         |         |
|---|---|---|------------|-------|---------|---------|---------|
| 0 | 1 | 0 | TTTTACTGG  | 12123 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTGATTTC  | 12124 | 0.0     | 0.0     | 0.0     |
| 0 | 1 | 0 | TTTGTCGTAA | 12125 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTGCTCGAA | 12126 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTGGAACG  | 12127 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTGTTATAT | 12128 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTGTTTCGT | 12129 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTGTTGCTT | 12130 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTGTTTAGT | 12131 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTGTTTCCC | 12132 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTGTTTGTA | 12133 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTTAAAAA  | 12134 | 0.0     | 0.0     | 0.0     |
| 1 | 0 | 0 | TTTTAAGTTA | 12135 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | TTTTAATGCT | 12136 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTTACACTC | 12137 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTTACAGAT | 12138 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTTACCGTT | 12139 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTTAGATAC | 12140 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTTAGTAGT | 12141 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTTAGTCGC | 12142 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTTAGTGAC | 12143 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | TTTTAGTGTT | 12144 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTTATCATC | 12145 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | TTTTATCTAA | 12146 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | TTTTATTACC | 12147 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | TTTTATTACT | 12148 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | TTTTATTATT | 12149 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | TTTTATTGAT | 12150 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
| 1 | 0 | 0 | 0 | TTTTCAAGTG | 12151 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TTTTCATAT  | 12152 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTTCAGAGG | 12153 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTCAGCAT | 12154 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTCAGAA  | 12155 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTCAGGT  | 12156 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTTCGCCCT | 12157 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTCGGCTA | 12158 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTTCGCAAC | 12159 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TTTTCATG   | 12160 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTCCTCAA | 12161 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTTCCTGTT | 12162 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTCCTCCA | 12163 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTCTTGAG  | 12164 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTGAATTC  | 12165 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTGAGAT   | 12166 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTGAGATT  | 12167 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TTTGAGGAA  | 12168 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTGAGTAT  | 12169 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTGATATG  | 12170 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTGATTCC  | 12171 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTGCCTGG  | 12172 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTGCCTTT  | 12173 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTGCTACG  | 12174 | #DIV/0! | 0.0     | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTGGAAAA  | 12175 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTGGGCTG  | 12176 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTGGGTACA | 12177 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTGTACAG  | 12178 | #DIV/0! | 0.0     | #DIV/0! |

Table 5, cont.

|   |   |   |   |            |       |         |         |         |
|---|---|---|---|------------|-------|---------|---------|---------|
| 1 | 0 | 0 | 0 | TTTTGTACGA | 12179 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTGTGTC  | 12180 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTGTCAA  | 12181 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TTTTGTGTG  | 12182 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 0 | TTTTGTTGC  | 12183 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTTACGTC  | 12184 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTTAGAGG  | 12185 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTAGGCA  | 12186 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTTAGTGC  | 12187 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TTTTCAGTC  | 12188 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTCATAT  | 12189 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTTCCGCA  | 12190 | 0.0     | #DIV/0! | 0.0     |
| 0 | 0 | 1 | 1 | TTTTCGTAT  | 12191 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTCTCAG  | 12192 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTCTCTT  | 12193 | #DIV/0! | #DIV/0! | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTTGGTGT  | 12194 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTTGTATA  | 12195 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTTTAACT  | 12196 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTTTAGAG  | 12197 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 0 | 1 | 1 | TTTTTGAAT  | 12198 | #DIV/0! | #DIV/0! | #DIV/0! |
| 1 | 0 | 0 | 0 | TTTTTTAAC  | 12199 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTTTCTG  | 12200 | 0.0     | #DIV/0! | 0.0     |
| 1 | 0 | 0 | 0 | TTTTTTTAA  | 12201 | 0.0     | #DIV/0! | 0.0     |
| 0 | 1 | 0 | 0 | TTTTTTTTA  | 12202 | #DIV/0! | 0.0     | #DIV/0! |
| 0 | 1 | 0 | 0 | TTTTTTTTT  | 12203 | #DIV/0! | 0.0     | #DIV/0! |



Table 6. Analysis of NORFs in intergenic regions

| Chromosome # | NORF Start Position | NORF End Position | Sequence    | Position | Copy Number | Seq. ID |
|--------------|---------------------|-------------------|-------------|----------|-------------|---------|
| 1            | 82289               | 82520             | GCATTGATGT  | 83003    | 1.1         | 302     |
| 1            | 82393               | 82603             | GCATTGATGT  | 83003    | 1.1         | 303     |
| 1            | 87139               | 87235             | TGGTACAAGG  | 87657    | 0.8         | 304     |
| 1            | 138363              | 138468            | GTTTTCCTTT  | 138346   | 0.8         | 305     |
| 1            | 199452              | 199530            | AAGTTTGATC  | 199861   | 0.5         | 306     |
| 1            | 199571              | 199679            | AAGTTTGATC  | 199861   | 0.5         | 307     |
| 1            | 199650              | 199749            | AAGTTTGATC  | 199861   | 0.5         | 308     |
| 2            | 45659               | 45758             | CACACCAAGA  | 46225    | 36.8        | 309     |
| 2            | 45843               | 45927             | CACACCAAGA  | 46225    | 36.8        | 310     |
| 2            | 45894               | 45768             | GTCAAGGTTT  | 46225    | -2.1        | 311     |
| 2            | 101406              | 101181            | GACCCCTTCCT | 101071   | -1.9        | 312     |
| 2            | 101441              | 101336            | GACCCCTTCCT | 101071   | -1.9        | 313     |
| 2            | 101670              | 101481            | GACCCCTTCCT | 101071   | -1.9        | 314     |
| 2            | 143419              | 143329            | TTGTCCTTCC  | 143816   | -1.9        | 315     |
| 2            | 164270              | 164141            | TCTTCCAACG  | 163954   | -0.5        | 316     |
| 2            | 164277              | 164160            | TCTTCCAACG  | 163954   | -0.5        | 317     |
| 2            | 164413              | 164332            | TCTTCCAACG  | 163954   | -0.5        | 318     |
| 2            | 164413              | 164332            | TCATTCATAC  | 164729   | -1.1        | 319     |
| 2            | 164511              | 164280            | TCTTCCAACG  | 163954   | -0.5        | 320     |
| 2            | 164511              | 164280            | TCATTCATAC  | 164729   | -1.1        | 321     |
| 2            | 164711              | 164630            | TCATTCATAC  | 164729   | -1.1        | 322     |
| 2            | 164731              | 164449            | TCTTCCAACG  | 163954   | -0.5        | 323     |
| 2            | 164731              | 164449            | TCATTCATAC  | 164729   | -1.1        | 324     |
| 2            | 164993              | 164786            | TCATTCATAC  | 164729   | -1.1        | 325     |
| 2            | 165070              | 164992            | TCATTCATAC  | 164729   | -1.1        | 326     |
| 2            | 165163              | 165088            | TCATTCATAC  | 164729   | -1.1        | 327     |

Table 6, cont.

|   |        |        |            |        |       |     |
|---|--------|--------|------------|--------|-------|-----|
| 2 | 165310 | 165217 | TCATTCATAC | 164729 | -1.1  | 328 |
| 2 | 168083 | 167993 | GATGTCGACG | 167621 | -3.2  | 329 |
| 2 | 168083 | 167993 | GCCAAATCAT | 167795 | -0.5  | 330 |
| 2 | 191757 | 191682 | GGAGCGTATA | 191214 | -0.5  | 331 |
| 2 | 207111 | 206976 | TCATTTATGA | 206843 | -0.5  | 332 |
| 2 | 237723 | 237648 | AGAAAGGATA | 237221 | -5.1  | 333 |
| 2 | 269981 | 270089 | GATATGCTAT | 270571 | 1.6   | 334 |
| 2 | 292027 | 292126 | TTTTACAGTG | 291819 | 1.1   | 335 |
| 2 | 350914 | 351010 | AACGCTTTTC | 351453 | 3.2   | 336 |
| 2 | 351211 | 351409 | AACGCTTTTC | 351453 | 3.2   | 337 |
| 2 | 373156 | 372892 | GTACACCACA | 372408 | -6.9  | 338 |
| 2 | 375803 | 375677 | ATCCAAGCTG | 375218 | -4.5  | 339 |
| 2 | 407148 | 407229 | TTTTTTTGA  | 407121 | 0.5   | 340 |
| 2 | 407258 | 407417 | TTTTTTTGA  | 407121 | 0.5   | 341 |
| 2 | 407415 | 407163 | GGACCTGCCG | 406912 | -21.3 | 342 |
| 2 | 407502 | 407592 | TTTTTTTGA  | 407121 | 0.5   | 343 |
| 2 | 407534 | 407609 | TTTTTTTGA  | 407121 | 0.5   | 344 |
| 2 | 419118 | 418863 | ACCCTGTCAT | 418633 | -8.0  | 345 |
| 2 | 419118 | 418863 | TTCTATTAGG | 418750 | -1.9  | 346 |
| 2 | 419291 | 419429 | TGATTTATCC | 418947 | 0.5   | 347 |
| 2 | 490542 | 490617 | TAGACATCTA | 491114 | 6.1   | 348 |
| 2 | 490637 | 490718 | TAGACATCTA | 491114 | 6.1   | 349 |
| 2 | 549170 | 549065 | GGCTCCTTAT | 548739 | -4.8  | 350 |
| 2 | 553439 | 553271 | AATACCAATG | 553682 | -0.5  | 351 |
| 2 | 564889 | 564964 | GAAAGCTTTT | 564504 | 0.8   | 352 |
| 2 | 564889 | 564964 | CAGAAATAGC | 565131 | 0.8   | 353 |
| 2 | 571996 | 571894 | GAAAGTGATG | 571506 | -1.9  | 354 |
| 2 | 572022 | 571947 | GAAAGTGATG | 571506 | -1.9  | 355 |

Table 6, cont.

|   |        |        |             |        |      |     |
|---|--------|--------|-------------|--------|------|-----|
| 2 | 578052 | 578196 | ATCTGTATT   | 578531 | 2.4  | 356 |
| 2 | 578128 | 578215 | ATCTGTATT   | 578531 | 2.4  | 357 |
| 2 | 592769 | 592907 | ATGCTCAGT   | 592726 | 0.5  | 358 |
| 2 | 680317 | 680515 | CGAAGTCAA   | 680606 | 0.8  | 359 |
| 2 | 680591 | 680828 | CGAAGTCAA   | 680606 | 0.8  | 360 |
| 2 | 680604 | 680484 | ACTGCATCTG  | 680861 | -0.5 | 361 |
| 2 | 680854 | 680962 | CGAAGTCAA   | 680606 | 0.8  | 362 |
| 2 | 680862 | 681009 | CGAAGTCAA   | 680606 | 0.8  | 363 |
| 2 | 680896 | 680737 | ACTGCATCTG  | 680861 | -0.5 | 364 |
| 2 | 681416 | 681182 | ACTGCATCTG  | 680861 | -0.5 | 365 |
| 2 | 744624 | 744780 | CAAGTTAGGA  | 744771 | 0.5  | 366 |
| 2 | 799902 | 800052 | TAGTCGCTGT  | 800544 | 0.5  | 367 |
| 2 | 800304 | 800412 | TAGTCGCTGT  | 800544 | 0.5  | 368 |
| 3 | 24097  | 24346  | CTGAAGCAGA  | 23866  | 1.1  | 369 |
| 3 | 24244  | 24103  | GGTTTGGCG   | 24168  | -4.5 | 370 |
| 3 | 24308  | 24017  | GGTTTGGCG   | 24168  | -4.5 | 371 |
| 3 | 29795  | 29915  | ATACCCAATT  | 29938  | 0.5  | 372 |
| 3 | 29795  | 29915  | AACTTTGTAT  | 30055  | 0.5  | 373 |
| 3 | 41465  | 41702  | GCGGCGGGTG  | 41647  | 0.5  | 374 |
| 3 | 56762  | 56840  | ATGGTAGCCA  | 56965  | 1.6  | 375 |
| 3 | 56762  | 56840  | AAAATTGTTT  | 57112  | 0.5  | 376 |
| 3 | 118040 | 118145 | CGGCCATTAT  | 118537 | 0.8  | 377 |
| 3 | 131368 | 131260 | GAAAGAACGTC | 131047 | -1.6 | 378 |
| 3 | 154938 | 154845 | TTGAGGAACG  | 154678 | -2.4 | 379 |
| 3 | 157511 | 157667 | TCAAGTACTC  | 157852 | 0.5  | 380 |
| 3 | 175540 | 175462 | AATACCAGCG  | 175538 | -1.3 | 381 |
| 3 | 289916 | 290111 | ACAAGCCCAA  | 289915 | 0.5  | 382 |
| 4 | 65111  | 65024  | TTTAATACTG  | 65386  | -1.6 | 383 |

Table 6, cont.

|   |        |        |             |        |      |     |
|---|--------|--------|-------------|--------|------|-----|
| 4 | 94228  | 94114  | GTACAGGGCT  | 93873  | -0.5 | 384 |
| 4 | 117459 | 117573 | ATATATTAG   | 117098 | 1.6  | 385 |
| 4 | 155987 | 155909 | GTGAACAGTC  | 155452 | -0.5 | 386 |
| 4 | 169785 | 169863 | TATCTTTTG   | 169784 | 1.1  | 387 |
| 4 | 229244 | 229349 | CCAAATCAAA  | 229491 | 3.7  | 388 |
| 4 | 254853 | 254751 | AAGATCATCG  | 254851 | -0.5 | 389 |
| 4 | 255125 | 254996 | AAGATCATCG  | 254851 | -0.5 | 390 |
| 4 | 255306 | 255204 | AAGATCATCG  | 254851 | -0.5 | 391 |
| 4 | 302833 | 302843 | GCTAAGAACC  | 302607 | -2.4 | 392 |
| 4 | 303010 | 302932 | GCTAAGAACC  | 302607 | -2.4 | 393 |
| 4 | 303201 | 303042 | GCTAAGAACC  | 302607 | -2.4 | 394 |
| 4 | 340977 | 340812 | GAACCTCCTGG | 340891 | -0.5 | 395 |
| 4 | 363788 | 363932 | AGGACGTTGA  | 364344 | 6.7  | 396 |
| 4 | 427124 | 427220 | AAATTTGGGG  | 426725 | 0.5  | 397 |
| 4 | 431696 | 431808 | TCAGCTCAAG  | 431556 | -0.5 | 398 |
| 4 | 442493 | 442397 | GAATTTTAGA  | 442107 | -0.5 | 399 |
| 4 | 442577 | 442496 | GAATTTTAGA  | 442107 | -0.5 | 400 |
| 4 | 444118 | 444247 | TAATTTTCAT  | 443782 | 0.5  | 401 |
| 4 | 452766 | 452679 | GAGAAGACAG  | 453166 | -0.5 | 402 |
| 4 | 452881 | 452959 | TTTGGTGGTA  | 453166 | 13.9 | 403 |
| 4 | 471279 | 471369 | AATACGTTAC  | 471791 | 0.5  | 404 |
| 4 | 471419 | 471506 | AATACGTTAC  | 471791 | 0.5  | 405 |
| 4 | 503374 | 503479 | AGCGAATGTA  | 503714 | 0.5  | 406 |
| 4 | 521353 | 521506 | TGTTTATAAG  | 521709 | 0.5  | 407 |
| 4 | 521378 | 521480 | TGTTTATAAG  | 521709 | 0.5  | 408 |
| 4 | 538841 | 538748 | CGTTTTCGTC  | 538839 | -0.5 | 409 |
| 4 | 538846 | 538756 | CGTTTTCGTC  | 538839 | -0.5 | 410 |
| 4 | 539135 | 539015 | CGTTTTCGTC  | 538839 | -0.5 | 411 |

Table 6, cont.

|   |         |         |             |         |        |     |
|---|---------|---------|-------------|---------|--------|-----|
| 4 | 539160  | 539085  | CGTTTTCGTC  | 538839  | -0.5   | 412 |
| 4 | 539521  | 539236  | CGTTTTCGTC  | 538839  | -0.5   | 413 |
| 4 | 565889  | 565763  | AAGCTGAGGA  | 565435  | -1.9   | 414 |
| 4 | 769248  | 769164  | TTGCAAGGTG  | 768862  | -0.5   | 415 |
| 4 | 769405  | 769291  | TTGCAAGGTG  | 768862  | -0.5   | 416 |
| 4 | 914857  | 914767  | CTGTCTCTGA  | 914409  | -28.8  | 417 |
| 4 | 915000  | 914892  | CTGTCTCTGA  | 914409  | -28.8  | 418 |
| 4 | 930790  | 930910  | TCCACACACA  | 930972  | 0.5    | 419 |
| 4 | 930916  | 931075  | TCCACACACA  | 930972  | 0.5    | 420 |
| 4 | 1075290 | 1075209 | TGTCTACCAA  | 1074719 | -0.8   | 421 |
| 4 | 1075639 | 1075783 | AATTGCCACC  | 1076144 | 1.1    | 422 |
| 4 | 1108535 | 1108319 | GGCGCAATTT  | 1108395 | -2.4   | 423 |
| 4 | 1108718 | 1108592 | GGCGCAATTT  | 1108395 | -2.4   | 424 |
| 4 | 1199134 | 1199050 | CTGGTCGCGA  | 1198566 | -0.5   | 425 |
| 4 | 1201741 | 1201819 | GGCCAATGGT  | 1202286 | 8.5    | 426 |
| 4 | 1239272 | 1239356 | GGTTTTGGTT  | 1239834 | 148.4  | 427 |
| 4 | 1239288 | 1239423 | GGTTTTGGTT  | 1239834 | 148.4  | 428 |
| 4 | 1302865 | 1302955 | TAGCCAATGC  | 1302517 | 0.8    | 429 |
| 4 | 1395010 | 1394827 | AGGAAAAGAA  | 1394470 | -1.1   | 430 |
| 4 | 1401524 | 1401608 | GCTAAATTTT  | 1401803 | 6.1    | 431 |
| 4 | 1401597 | 1401462 | GTTATATTGA  | 1401803 | -0.8   | 432 |
| 4 | 1469125 | 1469215 | GAGGATAACG  | 1469693 | 6.9    | 433 |
| 4 | 1469227 | 1469389 | GAGGATAACG  | 1469693 | 6.9    | 434 |
| 4 | 1489072 | 1489249 | AAAAGATCAT  | 1489450 | 7.2    | 435 |
| 4 | 1489451 | 1489538 | AAAAGATCAT  | 1489450 | 7.2    | 436 |
| 4 | 1489776 | 1489608 | TTCGTTTCACT | 1489450 | -101.3 | 437 |
| 4 | 1489846 | 1489648 | TTCGTTTCACT | 1489450 | -101.3 | 438 |
| 5 | 7754    | 7643    | GGTACGCAAG  | 7189    | -0.5   | 439 |

Table 6, cont.

|   |        |        |             |        |      |     |
|---|--------|--------|-------------|--------|------|-----|
| 5 | 66987  | 66906  | TATATTCICG  | 67152  | -3.7 | 440 |
| 5 | 67077  | 66990  | TATATTCICG  | 67152  | -3.7 | 441 |
| 5 | 69510  | 69321  | TGTCCTTCTC  | 68942  | -0.5 | 442 |
| 5 | 117907 | 117808 | GTACGCTGTG  | 118089 | -1.1 | 443 |
| 5 | 118091 | 118010 | GTACGCTGTG  | 118089 | -1.1 | 444 |
| 5 | 159423 | 159534 | AAGATGAAGG  | 159553 | 0.5  | 445 |
| 5 | 159517 | 159382 | CCAAGTCTCG  | 159320 | -0.5 | 446 |
| 5 | 167025 | 166923 | TGCCCTGGCC  | 166452 | -5.9 | 447 |
| 5 | 174995 | 175097 | GTACTCCTCT  | 175533 | 0.5  | 448 |
| 5 | 187382 | 187292 | GATTCCTCTG  | 187462 | -1.3 | 449 |
| 5 | 187524 | 187317 | GATTCCTCTG  | 187462 | -1.3 | 450 |
| 5 | 187830 | 187749 | GATTCCTCTG  | 187462 | -1.3 | 451 |
| 5 | 250717 | 250999 | GGACTATAAG  | 251266 | 1.6  | 452 |
| 5 | 251078 | 251276 | GGACTATAAG  | 251266 | 1.6  | 453 |
| 5 | 251166 | 251091 | TGGGTTGAAG  | 251266 | -0.8 | 454 |
| 5 | 251418 | 251196 | TGGGTTGAAG  | 251266 | -0.8 | 455 |
| 5 | 251443 | 251695 | GGACTATAAG  | 251266 | 1.6  | 456 |
| 5 | 251535 | 251457 | TGGGTTGAAG  | 251266 | -0.8 | 457 |
| 5 | 280856 | 280949 | CGAGACTTGG  | 280518 | 1.3  | 458 |
| 5 | 288178 | 288103 | AAAAGTAGTT  | 288398 | -0.5 | 459 |
| 5 | 288316 | 288202 | AAAAGTAGTT  | 288398 | -0.5 | 460 |
| 5 | 288625 | 288427 | AAAAGTAGTT  | 288398 | -0.5 | 461 |
| 5 | 288843 | 288762 | AAAAGTAGTT  | 288398 | -0.5 | 462 |
| 5 | 288978 | 288853 | AAAAGTAGTT  | 288398 | -0.5 | 463 |
| 5 | 302750 | 302845 | GCAACAAAAG  | 303010 | -2.7 | 464 |
| 5 | 318642 | 318804 | GTTCCGAAAAC | 319197 | 0.8  | 465 |
| 5 | 349352 | 349448 | CCCATAGTGG  | 349198 | 0.5  | 466 |
| 5 | 414306 | 414216 | GAAGAGAAATG | 413737 | -3.5 | 467 |

Table 6, cont.

|   |        |        |             |        |       |     |
|---|--------|--------|-------------|--------|-------|-----|
| 5 | 449471 | 449573 | GATGCCGAAA  | 449827 | 5.9   | 468 |
| 5 | 449741 | 449863 | ATTTATTG    | 449739 | -0.8  | 469 |
| 5 | 449882 | 449762 | ATTTATTG    | 449739 | -0.8  | 470 |
| 5 | 462115 | 462322 | GCAGAATGCT  | 462782 | 4.8   | 471 |
| 5 | 550699 | 550564 | ATCATAAAAA  | 550622 | -0.8  | 472 |
| 5 | 550800 | 550713 | ATCATAAAAA  | 550622 | -0.8  | 473 |
| 5 | 552326 | 552401 | GACAAATTTT  | 552612 | 0.5   | 474 |
| 6 | 76470  | 76338  | AAGTGATGAA  | 76141  | -0.5  | 475 |
| 6 | 76688  | 76517  | AAGTGATGAA  | 76141  | -0.5  | 476 |
| 6 | 226566 | 226698 | GGTGTGAAGG  | 226450 | 1.3   | 477 |
| 6 | 226705 | 226909 | GGTGTGAAGG  | 226450 | 1.3   | 478 |
| 6 | 226778 | 226865 | GGTGTGAAGG  | 226450 | 1.3   | 479 |
| 6 | 256326 | 256404 | AGTGATTGTT  | 256223 | 0.5   | 480 |
| 6 | 256551 | 256659 | AGTGATTGTT  | 256223 | 0.5   | 481 |
| 7 | 45394  | 45280  | GTGATGAACT  | 44798  | -2.4  | 482 |
| 7 | 144603 | 144678 | TGCCAGACTC  | 145067 | 2.7   | 483 |
| 7 | 150309 | 150207 | AAAGATCCGA  | 149894 | -0.5  | 484 |
| 7 | 299797 | 299944 | TGGCACCTCA  | 300075 | 1.9   | 485 |
| 7 | 323885 | 323762 | TTCACCGGAA  | 323655 | -0.5  | 486 |
| 7 | 324246 | 324132 | TTCACCGGAA  | 323655 | -0.5  | 487 |
| 7 | 401415 | 401331 | GCTTTGATTG  | 400901 | -6.1  | 488 |
| 7 | 402247 | 402418 | ATAACGAAAA  | 402790 | 0.8   | 489 |
| 7 | 423684 | 423558 | ACTATTCTGT  | 423957 | -0.5  | 490 |
| 7 | 479053 | 479128 | ATTTAAAAACA | 478646 | 0.5   | 491 |
| 7 | 485419 | 485527 | CGCCTCCAGT  | 485772 | 2.9   | 492 |
| 7 | 506061 | 505956 | GCCAAGAACT  | 505590 | -0.5  | 493 |
| 7 | 523429 | 523552 | TTTATTCAAT  | 523810 | 0.5   | 494 |
| 7 | 534651 | 534549 | AAAGACAGAG  | 534357 | -77.8 | 495 |

Table 6, cont.

|   |        |        |            |        |       |     |
|---|--------|--------|------------|--------|-------|-----|
| 7 | 535012 | 534742 | AAAGACAGAG | 534357 | -77.8 | 496 |
| 7 | 559026 | 559101 | AAAATATCTT | 559397 | 0.5   | 497 |
| 7 | 560127 | 560019 | TAAGGAGTTT | 559702 | -7.5  | 498 |
| 7 | 643861 | 644020 | CAACAAGGTA | 644349 | 1.6   | 499 |
| 7 | 695178 | 695256 | AGCCCGTTTT | 695627 | 0.5   | 500 |
| 7 | 735889 | 735787 | AAGCGCACAA | 735909 | -0.5  | 501 |
| 7 | 756886 | 756727 | TATGATGTGA | 756360 | -0.8  | 502 |
| 7 | 836065 | 835969 | GTAAGAAATC | 836202 | -1.3  | 503 |
| 7 | 836084 | 836009 | GTAAGAAATC | 836202 | -1.3  | 504 |
| 7 | 836203 | 836329 | TGTATTTTIG | 836202 | 0.5   | 505 |
| 7 | 836328 | 836595 | TGTATTTTIG | 836202 | 0.5   | 506 |
| 7 | 836340 | 836151 | GTAAGAAATC | 836202 | -1.3  | 507 |
| 7 | 836340 | 836151 | CTAAACAAAG | 836587 | -0.5  | 508 |
| 7 | 836341 | 836461 | TGTATTTTIG | 836202 | 0.5   | 509 |
| 7 | 836537 | 836462 | GTAAGAAATC | 836202 | -1.3  | 510 |
| 7 | 836537 | 836462 | CTAAACAAAG | 836587 | -0.5  | 511 |
| 7 | 836659 | 836383 | GTAAGAAATC | 836202 | -1.3  | 512 |
| 7 | 836659 | 836383 | CTAAACAAAG | 836587 | -0.5  | 513 |
| 7 | 856618 | 856726 | ACGTTCTTTT | 856247 | 31.2  | 514 |
| 7 | 867606 | 867528 | GATATCTTTA | 867110 | -1.3  | 515 |
| 7 | 878487 | 878325 | TATGGTAAAT | 877872 | -2.1  | 516 |
| 7 | 904952 | 904808 | TAGGAAGAAA | 905046 | -0.5  | 517 |
| 7 | 905112 | 905031 | TAGGAAGAAA | 905046 | -0.5  | 518 |
| 7 | 905158 | 905008 | TAGGAAGAAA | 905046 | -0.5  | 519 |
| 7 | 939168 | 939090 | GTTCTTGCCT | 939579 | -1.1  | 520 |
| 7 | 939405 | 939330 | GTTCTTGCCT | 939579 | -1.1  | 521 |
| 7 | 939581 | 939419 | GTTCTTGCCT | 939579 | -1.1  | 522 |
| 7 | 958643 | 958523 | GGAAAAATTA | 958839 | -0.5  | 523 |



Table 6, cont.

|   |        |        |             |        |      |     |
|---|--------|--------|-------------|--------|------|-----|
| 7 | 958910 | 958826 | GGAAAAATTA  | 958839 | -0.5 | 524 |
| 7 | 959344 | 959239 | GGAAAAATTA  | 958839 | -0.5 | 525 |
| 7 | 959854 | 959743 | GTCCATAAGC  | 960125 | -0.8 | 526 |
| 7 | 973737 | 973920 | AATCTTGAGA  | 973710 | 0.8  | 527 |
| 7 | 973965 | 974052 | AATCTTGAGA  | 973710 | 0.8  | 528 |
| 7 | 974035 | 974161 | AATCTTGAGA  | 973710 | 0.8  | 529 |
| 7 | 974093 | 974174 | AATCTTGAGA  | 973710 | 0.8  | 530 |
| 7 | 974238 | 974319 | TTTGGATAGT  | 974754 | 0.5  | 531 |
| 7 | 984769 | 984844 | AGAGAGATGT  | 985326 | 0.8  | 532 |
| 8 | 34334  | 34232  | CTACTTCTGC  | 34653  | -0.8 | 533 |
| 8 | 116135 | 116030 | CAGAAAATGG  | 115655 | -6.7 | 534 |
| 8 | 116166 | 116070 | CAGAAAATGG  | 115655 | -6.7 | 535 |
| 8 | 202313 | 202199 | CGTTTGTGTA  | 202655 | -0.5 | 536 |
| 8 | 202390 | 202294 | CGTTTGTGTA  | 202655 | -0.5 | 537 |
| 8 | 202657 | 202507 | CGTTTGTGTA  | 202655 | -0.5 | 538 |
| 8 | 202934 | 202841 | CGTTTGTGTA  | 202655 | -0.5 | 539 |
| 8 | 203267 | 203033 | CGTTTGTGTA  | 202655 | -0.5 | 540 |
| 8 | 246114 | 246192 | AAGGACITTA  | 245695 | 0.5  | 541 |
| 8 | 375327 | 375123 | ATTGCATCTC  | 374655 | -1.9 | 542 |
| 8 | 387112 | 387034 | AGAAAAAAC   | 386651 | -0.5 | 543 |
| 8 | 390068 | 390188 | TTAGTGAAAGG | 390531 | 1.1  | 544 |
| 8 | 519335 | 519230 | TAAAGTCCAG  | 518998 | -0.5 | 545 |
| 8 | 529417 | 529291 | TAAGCAGATT  | 529129 | -0.5 | 546 |
| 8 | 529666 | 529585 | TAAGCAGATT  | 529129 | -0.5 | 547 |
| 9 | 47656  | 47758  | AAGCGGTACT  | 47886  | 3.5  | 548 |
| 9 | 47875  | 47971  | AAGCGGTACT  | 47886  | 3.5  | 549 |
| 9 | 68369  | 68513  | CTCTCCCCCA  | 69011  | 0.5  | 550 |
| 9 | 150218 | 150398 | ATTGCAGAT   | 150886 | 1.1  | 551 |

Table 6, cont.

|    |        |        |             |        |       |     |
|----|--------|--------|-------------|--------|-------|-----|
| 9  | 180379 | 180280 | AGAACATCAA  | 180080 | -1.3  | 552 |
| 10 | 73584  | 73431  | TTTCAAGATG  | 73219  | -3.5  | 553 |
| 10 | 116993 | 117119 | ACGCTCCCAA  | 117476 | 1.1   | 554 |
| 10 | 159824 | 159701 | ACTTTTTCAG  | 159213 | -1.6  | 555 |
| 10 | 180882 | 180780 | ATATAGCTGC  | 181144 | -1.1  | 556 |
| 10 | 181408 | 181252 | ATATAGCTGC  | 181144 | -1.1  | 557 |
| 10 | 204817 | 204913 | CTTCAGAAATG | 205291 | 0.5   | 558 |
| 10 | 337698 | 337821 | GGGTTCTCTA  | 338217 | 0.5   | 559 |
| 10 | 434655 | 434781 | ACAAAATTGG  | 435135 | 4.8   | 560 |
| 10 | 434755 | 434674 | TACTCTCGTT  | 435135 | -0.5  | 561 |
| 10 | 454483 | 454693 | TAAGCGGAGT  | 454237 | 4.5   | 562 |
| 10 | 454622 | 454541 | GGCTTCTCTA  | 454115 | -0.5  | 563 |
| 10 | 471655 | 471556 | TTCATAAGTT  | 471894 | -0.8  | 564 |
| 10 | 471738 | 471546 | TTCATAAGTT  | 471894 | -0.8  | 565 |
| 10 | 472318 | 472192 | TTCATAAGTT  | 471894 | -0.8  | 566 |
| 10 | 525869 | 525968 | TAATTAGTTA  | 526379 | 0.8   | 567 |
| 10 | 578134 | 577984 | GCCGAATTCT  | 577507 | -0.5  | 568 |
| 10 | 585344 | 585482 | TCTTACAATA  | 585922 | 1.9   | 569 |
| 10 | 585501 | 585576 | TCTTACAATA  | 585922 | 1.9   | 570 |
| 10 | 622714 | 622867 | AATGTGGAAC  | 622554 | 0.5   | 571 |
| 10 | 622945 | 622849 | GGTAACGTAA  | 622447 | -36.0 | 572 |
| 10 | 639331 | 639433 | TCTCCGTACA  | 639846 | 0.5   | 573 |
| 10 | 721815 | 721899 | CAATTGGCAA  | 721778 | 0.5   | 574 |
| 10 | 721962 | 722046 | CAATTGGCAA  | 721778 | 0.5   | 575 |
| 11 | 74111  | 73889  | ATTCTGGATC  | 73672  | -0.5  | 576 |
| 11 | 74191  | 74032  | ATTCTGGATC  | 73672  | -0.5  | 577 |
| 11 | 75637  | 75742  | GCGTCCTCCC  | 75918  | 0.5   | 578 |
| 11 | 91601  | 91682  | CCAAAAA     | 91785  | 1.1   | 579 |

Table 6, cont.

|    |        |        |            |        |      |     |
|----|--------|--------|------------|--------|------|-----|
| 11 | 91621  | 91756  | CCAAAAA    | 91785  | 1.1  | 580 |
| 11 | 91700  | 91826  | CCAAAAA    | 91785  | 1.1  | 581 |
| 11 | 93604  | 93778  | GAATCCACA  | 94125  | 1.1  | 582 |
| 11 | 93620  | 93731  | GAATCCACA  | 94125  | 1.1  | 583 |
| 11 | 93653  | 93539  | ACTCCCTGTA | 93528  | -0.5 | 584 |
| 11 | 93822  | 93732  | ACTCCCTGTA | 93528  | -0.5 | 585 |
| 11 | 94057  | 93919  | ACTCCCTGTA | 93528  | -0.5 | 586 |
| 11 | 94076  | 94229  | GAATCCACA  | 94125  | 1.1  | 587 |
| 11 | 94111  | 94234  | GAATCCACA  | 94125  | 1.1  | 588 |
| 11 | 94127  | 93998  | ACTCCCTGTA | 93528  | -0.5 | 589 |
| 11 | 143708 | 143804 | CTCTATTGAT | 144281 | 0.5  | 590 |
| 11 | 143803 | 143929 | CTCTATTGAT | 144281 | 0.5  | 591 |
| 11 | 146079 | 145929 | TAAATCTGAG | 145617 | -0.8 | 592 |
| 11 | 146115 | 146196 | GCTTTCCTTT | 146665 | 0.5  | 593 |
| 11 | 146591 | 146756 | GCTTTCCTTT | 146665 | 0.5  | 594 |
| 11 | 151395 | 151557 | CTGGTAGAAA | 151174 | 0.8  | 595 |
| 11 | 202891 | 202981 | AACAAGATTG | 203396 | 1.1  | 596 |
| 11 | 203065 | 203146 | AACAAGATTG | 203396 | 1.1  | 597 |
| 11 | 212738 | 212657 | TCTGTGAAAC | 212642 | -1.9 | 598 |
| 11 | 212805 | 212706 | TCTGTGAAAC | 212642 | -1.9 | 599 |
| 11 | 212887 | 212773 | TCTGTGAAAC | 212642 | -1.9 | 600 |
| 11 | 213019 | 212944 | TCTGTGAAAC | 212642 | -1.9 | 601 |
| 11 | 226029 | 226119 | GAGGCAAAA  | 226288 | 0.5  | 602 |
| 11 | 231305 | 231446 | ACCGCAAAGA | 231872 | 0.5  | 603 |
| 11 | 316824 | 316716 | TCTATTGTCA | 316337 | -4.8 | 604 |
| 11 | 374386 | 374269 | CCTTCACTGC | 374172 | -1.1 | 605 |
| 11 | 374400 | 374499 | CTGTTTTGGG | 374761 | 1.9  | 606 |
| 11 | 374465 | 374339 | CCTTCACTGC | 374172 | -1.1 | 607 |

Table 6, cont.

|    |        |        |            |        |      |     |
|----|--------|--------|------------|--------|------|-----|
| 11 | 374612 | 374522 | CCTTCACTGC | 374172 | -1.1 | 608 |
| 11 | 374986 | 375070 | CTGTTTTGGG | 374761 | 1.9  | 609 |
| 11 | 374986 | 375070 | TTTAAAAAAA | 375209 | 0.5  | 610 |
| 11 | 393014 | 392789 | TTAGAGAGAC | 392377 | -3.2 | 611 |
| 11 | 430450 | 430354 | TACTTTAAAC | 430109 | -0.5 | 612 |
| 11 | 437419 | 437536 | GGTGATGAGG | 437945 | 4.0  | 613 |
| 11 | 451014 | 450927 | GTTCAAGAGG | 450734 | -0.8 | 614 |
| 11 | 527162 | 527009 | AGAACTTCGT | 526695 | -1.9 | 615 |
| 11 | 527211 | 527100 | AGAACTTCGT | 526695 | -1.9 | 616 |
| 11 | 527218 | 527119 | AGAACTTCGT | 526695 | -1.9 | 617 |
| 11 | 578670 | 578745 | GTTCCAAGAC | 579136 | 6.4  | 618 |
| 11 | 580673 | 580553 | TACCTCGTTA | 580171 | -0.5 | 619 |
| 11 | 580809 | 580623 | TACCTCGTTA | 580171 | -0.5 | 620 |
| 11 | 625735 | 625840 | CACATCATAA | 625896 | 1.1  | 621 |
| 12 | 198728 | 198986 | ATCATTGGG  | 199358 | 1.3  | 622 |
| 12 | 230483 | 230570 | CTTGTTCAAA | 230973 | 0.5  | 623 |
| 12 | 230586 | 230679 | CTTGTTCAAA | 230973 | 0.5  | 624 |
| 12 | 230974 | 231106 | CTTGTTCAAA | 230973 | 0.5  | 625 |
| 12 | 231081 | 231201 | CTTGTTCAAA | 230973 | 0.5  | 626 |
| 12 | 282669 | 282522 | GAGACTGCTA | 282284 | -4.0 | 627 |
| 12 | 286675 | 286759 | ATAATGGAAC | 287109 | 0.8  | 628 |
| 12 | 320057 | 320138 | AATGTGCTGT | 320427 | 0.5  | 629 |
| 12 | 320203 | 320314 | AATGTGCTGT | 320427 | 0.5  | 630 |
| 12 | 320428 | 320557 | AATGTGCTGT | 320427 | 0.5  | 631 |
| 12 | 320496 | 320640 | AATGTGCTGT | 320427 | 0.5  | 632 |
| 12 | 340974 | 341061 | GCAGATAGCG | 341325 | 0.5  | 633 |
| 12 | 341326 | 341587 | GCAGATAGCG | 341325 | 0.5  | 634 |
| 12 | 341402 | 341486 | GCAGATAGCG | 341325 | 0.5  | 635 |

Table 6, cont.

|    |        |        |            |        |       |     |
|----|--------|--------|------------|--------|-------|-----|
| 12 | 341463 | 341538 | GCAGATAGCG | 341325 | 0.5   | 636 |
| 12 | 341603 | 341783 | GCAGATAGCG | 341325 | 0.5   | 637 |
| 12 | 348410 | 348299 | GAAAGCTAGA | 347904 | -0.8  | 638 |
| 12 | 348490 | 348364 | GAAAGCTAGA | 347904 | -0.8  | 639 |
| 12 | 368278 | 368404 | TCTGACTTAG | 368781 | 0.5   | 640 |
| 12 | 390278 | 390419 | GCCGTTTCAT | 390118 | 0.8   | 641 |
| 12 | 449634 | 449715 | GTAACGATTG | 449918 | 0.5   | 642 |
| 12 | 449727 | 449895 | GTAACGATTG | 449918 | 0.5   | 643 |
| 12 | 449825 | 449996 | GTAACGATTG | 449918 | 0.5   | 644 |
| 12 | 449919 | 450075 | GTAACGATTG | 449918 | 0.5   | 645 |
| 12 | 574127 | 574046 | CCGAAACAGG | 573606 | -0.8  | 646 |
| 12 | 669662 | 669470 | TCTAGTCGCC | 669660 | -11.2 | 647 |
| 12 | 669894 | 669741 | TCTAGTCGCC | 669660 | -11.2 | 648 |
| 12 | 722618 | 722381 | TTGCTAAAGA | 722091 | -1.3  | 649 |
| 12 | 783612 | 783435 | TTTACGATAA | 782983 | -5.6  | 650 |
| 12 | 783612 | 783435 | TCAAACATCC | 783017 | -2.1  | 651 |
| 12 | 794725 | 794644 | CATCACCATC | 794711 | -0.5  | 652 |
| 12 | 794732 | 794618 | CATCACCATC | 794711 | -0.5  | 653 |
| 12 | 796120 | 796009 | AAGGACAGAG | 795803 | -35.7 | 654 |
| 12 | 902675 | 902774 | CCTTGTGGGA | 903197 | 0.5   | 655 |
| 12 | 902685 | 902820 | CCTTGTGGGA | 903197 | 0.5   | 656 |
| 12 | 902773 | 902884 | CCTTGTGGGA | 903197 | 0.5   | 657 |
| 13 | 70306  | 70225  | TGCCTCAGGA | 69824  | -1.3  | 658 |
| 13 | 104539 | 104413 | TTGAAAAGAT | 104160 | -1.9  | 659 |
| 13 | 158623 | 158698 | CTTCTCTTTT | 158970 | 13.1  | 660 |
| 13 | 158624 | 158507 | GTCATATAGT | 158765 | -1.6  | 661 |
| 13 | 158624 | 158507 | CTCTTAGTTG | 158970 | -0.5  | 662 |
| 13 | 158760 | 158964 | CTTCTCTTTT | 158970 | 13.1  | 663 |

Table 6, cont.

|    |        |        |             |        |      |     |
|----|--------|--------|-------------|--------|------|-----|
| 13 | 158972 | 158876 | GTCATATAGT  | 158765 | -1.6 | 664 |
| 13 | 158972 | 158876 | CTCTTAGTTG  | 158970 | -0.5 | 665 |
| 13 | 159169 | 159031 | GTCATATAGT  | 158765 | -1.6 | 666 |
| 13 | 159169 | 159031 | CTCTTAGTTG  | 158970 | -0.5 | 667 |
| 13 | 159305 | 159218 | GTCATATAGT  | 158765 | -1.6 | 668 |
| 13 | 159305 | 159218 | CTCTTAGTTG  | 158970 | -0.5 | 669 |
| 13 | 164183 | 164333 | GAAGCCTGTT  | 163844 | 1.1  | 670 |
| 13 | 164208 | 164283 | GAAGCCTGTT  | 163844 | 1.1  | 671 |
| 13 | 228845 | 228932 | TCTATAGCAA  | 228936 | 0.8  | 672 |
| 13 | 283258 | 283336 | TGCGCAAGTC  | 283795 | 0.5  | 673 |
| 13 | 283982 | 284069 | TGCGCAAGTC  | 283795 | 0.5  | 674 |
| 13 | 297937 | 298063 | CCTTTCTGAA  | 297985 | 0.8  | 675 |
| 13 | 298096 | 298180 | CCTTTCTGAA  | 297985 | 0.8  | 676 |
| 13 | 298249 | 298411 | CCTTTCTGAA  | 297985 | 0.8  | 677 |
| 13 | 298310 | 298388 | CCTTTCTGAA  | 297985 | 0.8  | 678 |
| 13 | 340745 | 340844 | GGTCCCGTA   | 341196 | 0.8  | 679 |
| 13 | 350254 | 350341 | GAAAGGTCA   | 350573 | 1.1  | 680 |
| 13 | 362701 | 362827 | TTTTTCTTAA  | 363037 | 0.5  | 681 |
| 13 | 511314 | 511566 | TTTCCTATAA  | 511751 | 11.5 | 682 |
| 13 | 511387 | 511552 | TTTCCTATAA  | 511751 | 11.5 | 683 |
| 13 | 511522 | 511291 | CAATGGCCCA  | 511751 | -2.7 | 684 |
| 13 | 511694 | 511772 | TTTCCTATAA  | 511751 | 11.5 | 685 |
| 13 | 511752 | 511827 | TTTCCTATAA  | 511751 | 11.5 | 686 |
| 13 | 511887 | 511809 | CAATGGCCCA  | 511751 | -2.7 | 687 |
| 13 | 512285 | 512204 | CAATGGCCCA  | 511751 | -2.7 | 688 |
| 13 | 552254 | 552167 | GGCAACAGCA  | 552531 | -1.1 | 689 |
| 13 | 552267 | 552105 | GGCAACAGCA  | 552531 | -1.1 | 690 |
| 13 | 652875 | 652749 | CCAGAAAGGAG | 652873 | -1.3 | 691 |

Table 6, cont.

|    |        |        |             |        |       |     |
|----|--------|--------|-------------|--------|-------|-----|
| 13 | 652993 | 652891 | CCAGAAGGAG  | 652873 | -1.3  | 692 |
| 13 | 653135 | 652913 | CCAGAAGGAG  | 652873 | -1.3  | 693 |
| 13 | 653340 | 653232 | CCAGAAGGAG  | 652873 | -1.3  | 694 |
| 13 | 653510 | 653315 | CCAGAAGGAG  | 652873 | -1.3  | 695 |
| 13 | 754016 | 753848 | GCTGCCAGAC  | 753413 | -24.5 | 696 |
| 13 | 804354 | 804474 | GTGGGAAAGG  | 804600 | 1.6   | 697 |
| 13 | 826412 | 826493 | GCAATACTAT  | 826521 | 0.5   | 698 |
| 13 | 841805 | 841883 | AATTAAACACC | 842122 | 0.8   | 699 |
| 13 | 880653 | 880446 | CGCAGGTTAC  | 880121 | -0.5  | 700 |
| 14 | 59970  | 59880  | AGTGACGATG  | 60143  | -0.5  | 701 |
| 14 | 60135  | 60057  | AGTGACGATG  | 60143  | -0.5  | 702 |
| 14 | 60190  | 60025  | AGTGACGATG  | 60143  | -0.5  | 703 |
| 14 | 60296  | 60203  | AGTGACGATG  | 60143  | -0.5  | 704 |
| 14 | 60321  | 60183  | AGTGACGATG  | 60143  | -0.5  | 705 |
| 14 | 60428  | 60353  | AGTGACGATG  | 60143  | -0.5  | 706 |
| 14 | 106708 | 106789 | GCAGAAGAAC  | 106358 | 0.8   | 707 |
| 14 | 107444 | 107585 | GATACCTTCA  | 108068 | 0.5   | 708 |
| 14 | 107496 | 107574 | GATACCTTCA  | 108068 | 0.5   | 709 |
| 14 | 187673 | 187517 | GGTTTAAAGT  | 187177 | -14.7 | 710 |
| 14 | 282280 | 282193 | TTCACCCCTTC | 282463 | -2.1  | 711 |
| 14 | 335847 | 335772 | GTTTGACCTA  | 335512 | -0.5  | 712 |
| 14 | 335899 | 335746 | GTTTGACCTA  | 335512 | -0.5  | 713 |
| 14 | 336012 | 335913 | GTTTGACCTA  | 335512 | -0.5  | 714 |
| 14 | 350723 | 350843 | CATCAGCAAC  | 350938 | 3.5   | 715 |
| 14 | 412155 | 412074 | AAGGCTAATG  | 412050 | -0.5  | 716 |
| 14 | 479523 | 479346 | GCAGGAGAAG  | 479112 | -1.1  | 717 |
| 14 | 622639 | 622558 | TGCTGGTGT   | 622376 | -0.8  | 718 |
| 14 | 622840 | 622741 | TGCTGGTGT   | 622376 | -0.8  | 719 |

Table 6, cont.

|    |        |        |            |        |      |      |
|----|--------|--------|------------|--------|------|------|
| 14 | 622856 | 622757 | TGCTGGTGT  | 622376 | -0.8 | 720  |
| 14 | 662086 | 661969 | TGTTTATAA  | 661712 | -0.8 | 721  |
| 14 | 662160 | 662001 | TGTTTATAA  | 661712 | -0.8 | 1722 |
| 15 | 31894  | 31984  | AAAAGTCATT | 32081  | 0.8  | 723  |
| 15 | 33000  | 33075  | TAGTTTGTG  | 33475  | 1.1  | 724  |
| 15 | 33062  | 33137  | TAGTTTGTG  | 33475  | 1.1  | 725  |
| 15 | 33183  | 33333  | TAGTTTGTG  | 33475  | 1.1  | 726  |
| 15 | 33789  | 33876  | TAGTTTGTG  | 33475  | 1.1  | 727  |
| 15 | 36175  | 36998  | AAATTCAAAA | 35952  | -0.5 | 728  |
| 15 | 43365  | 43473  | TTTCCAAAA  | 43887  | 0.5  | 729  |
| 15 | 242607 | 242691 | TTTGCTTGGT | 242743 | 0.5  | 730  |
| 15 | 242744 | 242828 | TTTGCTTGGT | 242743 | 0.5  | 731  |
| 15 | 255172 | 255268 | TGGTGTGTG  | 255542 | 6.7  | 732  |
| 15 | 255257 | 255119 | GATTTAAACT | 254749 | -2.9 | 733  |
| 15 | 274560 | 274449 | ATGCTCGGCT | 274180 | -2.1 | 734  |
| 15 | 274734 | 274629 | ATGCTCGGCT | 274180 | -2.1 | 735  |
| 15 | 304341 | 304449 | AGTTTTCCTG | 304814 | 0.5  | 736  |
| 15 | 304815 | 304920 | AGTTTTCCTG | 304814 | 0.5  | 737  |
| 15 | 305120 | 305303 | AGTTTTCCTG | 304814 | 0.5  | 738  |
| 15 | 305131 | 305242 | AGTTTTCCTG | 304814 | 0.5  | 739  |
| 15 | 316395 | 316263 | AATGCTCCAG | 316173 | -1.9 | 740  |
| 15 | 372184 | 372049 | GCTTTGCTAA | 372381 | -0.5 | 741  |
| 15 | 418057 | 417958 | ACGAAAATCC | 417612 | -0.8 | 742  |
| 15 | 431735 | 431849 | TCTTGAAAAG | 432323 | 1.3  | 743  |
| 15 | 431911 | 431989 | TCTTGAAAAG | 432323 | 1.3  | 744  |
| 15 | 449127 | 449040 | AAGGAGACAC | 448625 | -0.5 | 745  |
| 15 | 517364 | 517442 | TTTCAGGCAA | 517833 | 1.1  | 746  |
| 15 | 517380 | 517467 | TTTCAGGCAA | 517833 | 1.1  | 747  |



Table 6, cont.

|    |         |         |             |         |      |     |
|----|---------|---------|-------------|---------|------|-----|
| 15 | 544520  | 544625  | CTATATATCA  | 544531  | 0.5  | 748 |
| 15 | 571039  | 571222  | GATGGAATAG  | 571211  | 0.5  | 749 |
| 15 | 571131  | 571281  | GATGGAATAG  | 571211  | 0.5  | 750 |
| 15 | 649200  | 649104  | GATAACAAAA  | 649003  | -4.0 | 751 |
| 15 | 671181  | 671070  | AGCATCGGTG  | 671550  | -1.1 | 752 |
| 15 | 671231  | 671051  | AGCATCGGTG  | 671550  | -1.1 | 753 |
| 15 | 712664  | 712589  | GGACAAATCAG | 712375  | -1.1 | 754 |
| 15 | 727390  | 727471  | TCTGTCGAAA  | 727713  | 1.1  | 755 |
| 15 | 792336  | 792480  | ACGGAAAAGA  | 792535  | 0.8  | 756 |
| 15 | 797555  | 797462  | GGTGGATTCT  | 797959  | -2.7 | 757 |
| 15 | 803470  | 803569  | CCGGTTACTA  | 803664  | 1.3  | 758 |
| 15 | 832327  | 832423  | AGCGTCCTCA  | 832421  | 1.9  | 759 |
| 15 | 832422  | 832539  | AGCGTCCTCA  | 832421  | 1.9  | 760 |
| 15 | 842430  | 842349  | ATTGTTTCTA  | 841971  | -2.1 | 761 |
| 15 | 877678  | 877585  | ATCGTTTTAT  | 877140  | -9.1 | 762 |
| 15 | 888762  | 888978  | ATGGTGCGGT  | 889194  | 1.6  | 763 |
| 15 | 969383  | 969500  | TTTCCAGAAT  | 969885  | 0.5  | 764 |
| 15 | 969499  | 969601  | TTTCCAGAAT  | 969885  | 0.5  | 765 |
| 15 | 969836  | 969956  | TTTCCAGAAT  | 969885  | 0.5  | 766 |
| 15 | 969983  | 970091  | TTTCCAGAAT  | 969885  | 0.5  | 767 |
| 15 | 970096  | 970255  | TTTCCAGAAT  | 969885  | 0.5  | 768 |
| 15 | 970226  | 970112  | TGGACAATGT  | 970608  | -0.5 | 769 |
| 15 | 970302  | 970155  | TGGACAATGT  | 970608  | -0.5 | 770 |
| 15 | 970877  | 970796  | TGGACAATGT  | 970608  | -0.5 | 771 |
| 15 | 971249  | 971087  | TGGACAATGT  | 970608  | -0.5 | 772 |
| 15 | 1003938 | 1004028 | CGATGAGAAG  | 1004370 | 1.3  | 773 |
| 15 | 1004147 | 1004429 | CGATGAGAAG  | 1004370 | 1.3  | 774 |
| 15 | 1004235 | 1004337 | CGATGAGAAG  | 1004370 | 1.3  | 775 |

Table 6, cont.

|    |         |         |            |         |      |      |
|----|---------|---------|------------|---------|------|------|
| 15 | 1004376 | 1004508 | CGATGAGAAG | 1004370 | 1.3  | 1776 |
| 15 | 1009895 | 1009808 | GTACCTCATT | 1009390 | -2.1 | 777  |
| 16 | 74996   | 74918   | TTCGATATGG | 74459   | -1.1 | 778  |
| 16 | 75015   | 74868   | TTCGATATGG | 74459   | -1.1 | 779  |
| 16 | 85534   | 85435   | GGACTGTGTA | 85036   | -1.1 | 780  |
| 16 | 85580   | 85403   | GGACTGTGTA | 85036   | -1.1 | 781  |
| 16 | 188512  | 188308  | AGCAGGAGTT | 188350  | -2.1 | 782  |
| 16 | 188701  | 188608  | AGCAGGAGTT | 188350  | -2.1 | 783  |
| 16 | 188796  | 188703  | AGCAGGAGTT | 188350  | -2.1 | 784  |
| 16 | 188819  | 188579  | AGCAGGAGTT | 188350  | -2.1 | 785  |
| 16 | 198589  | 198736  | AAACCGTCCC | 199141  | 1.3  | 786  |
| 16 | 228157  | 228250  | CATTGGTACT | 228728  | 0.8  | 787  |
| 16 | 280116  | 279999  | GACTTCTTTC | 279670  | -0.5 | 788  |
| 16 | 458784  | 459001  | AAATTGAGAT | 459472  | 1.3  | 789  |
| 16 | 517452  | 517350  | ATGCCCGTAG | 516909  | -0.8 | 790  |
| 16 | 560637  | 560517  | AATTGACGAA | 560169  | -0.8 | 791  |
| 16 | 560761  | 560566  | AATTGACGAA | 560169  | -0.8 | 792  |
| 16 | 581918  | 581792  | ACTATATGTT | 582230  | -0.5 | 793  |
| 16 | 582098  | 582020  | ACTATATGTT | 582230  | -0.5 | 794  |
| 16 | 582098  | 582020  | TTGATGATTT | 582360  | -0.8 | 795  |
| 16 | 582213  | 582105  | ACTATATGTT | 582230  | -0.5 | 796  |
| 16 | 582213  | 582105  | TTGATGATTT | 582360  | -0.8 | 797  |
| 16 | 589101  | 589215  | GATATATCAT | 589647  | 0.5  | 798  |
| 16 | 589142  | 589274  | GATATATCAT | 589647  | 0.5  | 799  |
| 16 | 589341  | 589449  | GATATATCAT | 589647  | 0.5  | 800  |
| 16 | 589611  | 589695  | GATATATCAT | 589647  | 0.5  | 801  |
| 16 | 623391  | 623466  | TCCGAATATG | 623521  | 5.1  | 802  |
| 16 | 653748  | 653949  | AAGTTGAACA | 654275  | 17.9 | 803  |

Table 6, cont.

|    |        |        |            |        |      |     |
|----|--------|--------|------------|--------|------|-----|
| 16 | 653774 | 654002 | AAGTTGAACA | 654275 | 17.9 | 804 |
| 16 | 678614 | 678413 | AACTTAGTTT | 677921 | -2.7 | 805 |
| 16 | 704776 | 704680 | ATGTGTGATT | 704380 | -1.6 | 806 |
| 16 | 744464 | 744635 | AGAATTGATT | 744406 | 0.5  | 807 |
| 16 | 829798 | 829717 | CCAATGGTTC | 830109 | -1.3 | 808 |
| 16 | 870135 | 870042 | GGATATTACC | 869622 | -2.7 | 809 |
| 16 | 870238 | 870088 | GGATATTACC | 869622 | -2.7 | 810 |
| 16 | 883373 | 883556 | TGACATTCTT | 883666 | 6.4  | 811 |

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**CLAIMS**

1. An isolated DNA molecule comprising a coding sequence of a yeast gene selected from the group of NORF genes comprising a SAGE tag as shown in SEQ ID NOS:67-811.

5 2. The isolated DNA molecule of claim 1 which is involved in cell cycle progression.

3. The isolated DNA molecule of claim 2 wherein expression of the NORF gene varies by at least 10% between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

10 4. The isolated DNA molecule of claim 2 wherein expression of the NORF gene varies by at least 25% between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

15 5. The isolated DNA molecule of claim 2 wherein expression of the NORF gene varies by at least 50% between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

6. The isolated DNA molecule of claim 2 wherein expression of the NORF gene varies by at least 100% between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

20 7. The isolated DNA molecule of claim 2 wherein expression of the NORF gene varies by a statistically significant difference (greater than 95% confidence level) between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

8. The isolated DNA molecule of claim 7 wherein the NORF gene is selected from the group consisting of NORF N<sup>o</sup> 1, 2, 4, 5, 6, 17, 25, and 27.

25 9. The isolated DNA molecule of claim 2 wherein the NORF gene is not expressed in at least one phase of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

10. The isolated DNA molecule of claim 1 which is genomic.

11. The isolated DNA molecule of claim 1 which is cDNA.

30 12. A method of using NORF genes to affect the cell cycle, comprising the



step of:

administering to a cell an isolated DNA molecule comprising a coding sequence of a NORF gene whose expression varies by at least 10% between any two phases of the cell cycle selected from the group consisting of log phase, S phase, and G2/M.

13. The method of claim 12 wherein the cell is a yeast cell.

14. The method of claim 12 wherein the cell is a fungal cell.

15. The method of claim 12 wherein the cell is a mammalian cell.

16. The method of claim 12 wherein the NORF gene is selected from the group consisting of NORF N<sup>o</sup> 1, 2, 4, 5, 6, 17, 25, and 27.

17. A method for screening candidate antifungal drugs, comprising the steps of:

contacting a test substance with a yeast cell;

monitoring expression of a NORF gene whose expression varies by at least 10% between any two phases of the cell cycle selected from the group consisting of log phase, S phase, and G2/M, wherein a test substance which modifies the expression of the yeast gene is a candidate antifungal drug.

18. The method of claim 17 wherein the NORF gene is selected from the group consisting of NORF N<sup>o</sup> 1, 2, 4, 5, 6, 17, 25, and 27.

19. A method for identifying human genes which are involved in cell cycle progression, comprising the steps of:

contacting human DNA with a probe which comprises at least 10 contiguous nucleotides of a NORF gene whose expression varies by at least 10% between any two phases of the cell cycle selected from the group consisting of log phase, S phase, and G2/M phase, wherein a human DNA sequence which hybridizes to the probe is identified as a sequence of a candidate human gene which is involved in cell cycle progression.

20. The method of claim 19 wherein the NORF gene is selected from the group consisting of NORF N<sup>o</sup> 1, 2, 4, 5, 6, 17, 25, and 27.

21. A probe comprising at least 14 contiguous nucleotides of a NORF gene comprising a SAGE tag as shown in SEQ ID NOS:67-811.

22. The probe of claim 21 wherein expression of the NORF gene varies by at least 10% between any two phases of a cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

23. The probe of claim 22 wherein expression of the NORF gene varies by at least 25% between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

24. The probe of claim 22 wherein expression of the NORF gene varies by at least 50% between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

25. The probe of claim 22 wherein expression of the NORF gene varies by at least 100% between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

26. The probe of claim 22 wherein the NORF gene is not expressed in at least one phase of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

27. The probe of claim 22 wherein expression of the NORF gene varies by a statistically significant difference (greater than 95% confidence level) between any two phases of the cell cycle selected from the group consisting of: log phase, S phase, and G2/M.

28. The probe of claim 22 wherein the gene is selected from the group consisting of NORF N<sup>o</sup> 1, 2, 4, 5, 6, 17, 25, and 27.

29. The method of claim 17 wherein said step of monitoring expression is performed using nucleic acid molecules which are immobilized on a solid support.

30. The method of claim 29 wherein the nucleic acid molecules are in on array.

31. The method of claim 19 wherein a probe which comprises a portion of the NORF gene is in an array on a solid support.

32. An array of probes on a solid support wherein at least one probe comprises at least 14 contiguous nucleotides of a NORF gene comprising a SAGE tag as shown in SEQ ID NOS:67-811.

33. The array of claim 32 wherein the at least one NORF gene is involved

in cell cycle progression.

34. The array of claim 32 wherein the NORF gene is selected from the group consisting of NORF No. 1, 2, 4, 5, 6, 17, 25, and 27.

5 35. The array of claim 32 which comprises at least 100 probes of distinct sequence.

36. The array of claim 32 which comprises at least 500 probes of distinct sequence.

37. The array of claim 32 which comprises at least 1,000 probes of distinct sequence.

10 38. A method of identifying a candidate drug as a member of a class of drugs having a characteristic effect on gene expression in a yeast cell, comprising the steps of:

contacting a yeast cell with a candidate drug; and

15 monitoring expression in the yeast cell of at least one NORF gene whose expression is affected by the class of drugs, wherein detection of a difference in expression of the at least one NORF gene in the yeast cell relative to expression in the absence of the candidate drug identifies the candidate drug as a member of the class of drugs.

20 39. The method of claim 38 wherein the step of monitoring expression is performed using nucleic acid molecules which are immobilized on a solid support.

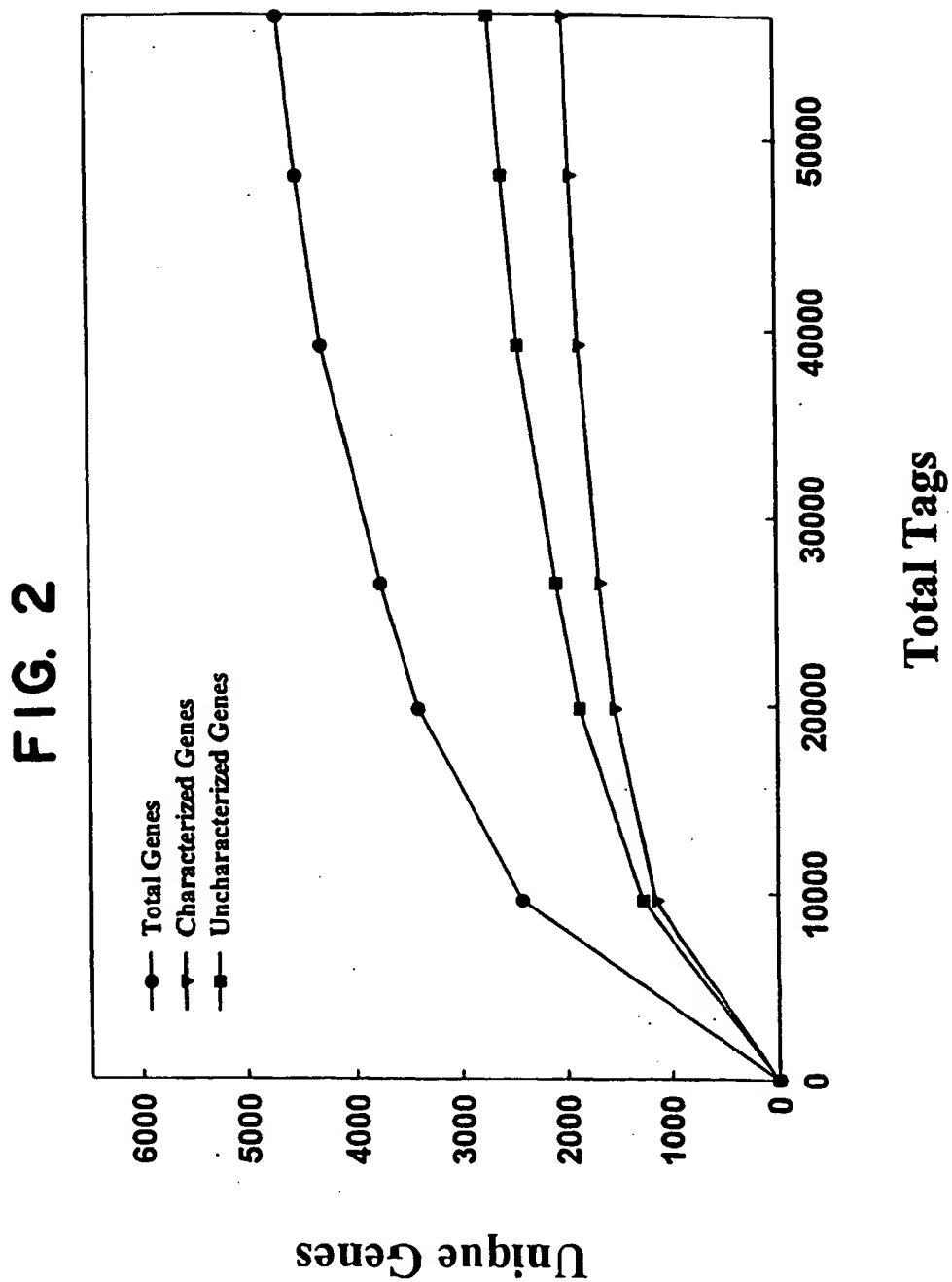
40. The method of claim 39 wherein the nucleic acid molecules are in an array.

41. The method of claim 38 wherein expression of two or more NORF genes is monitored.

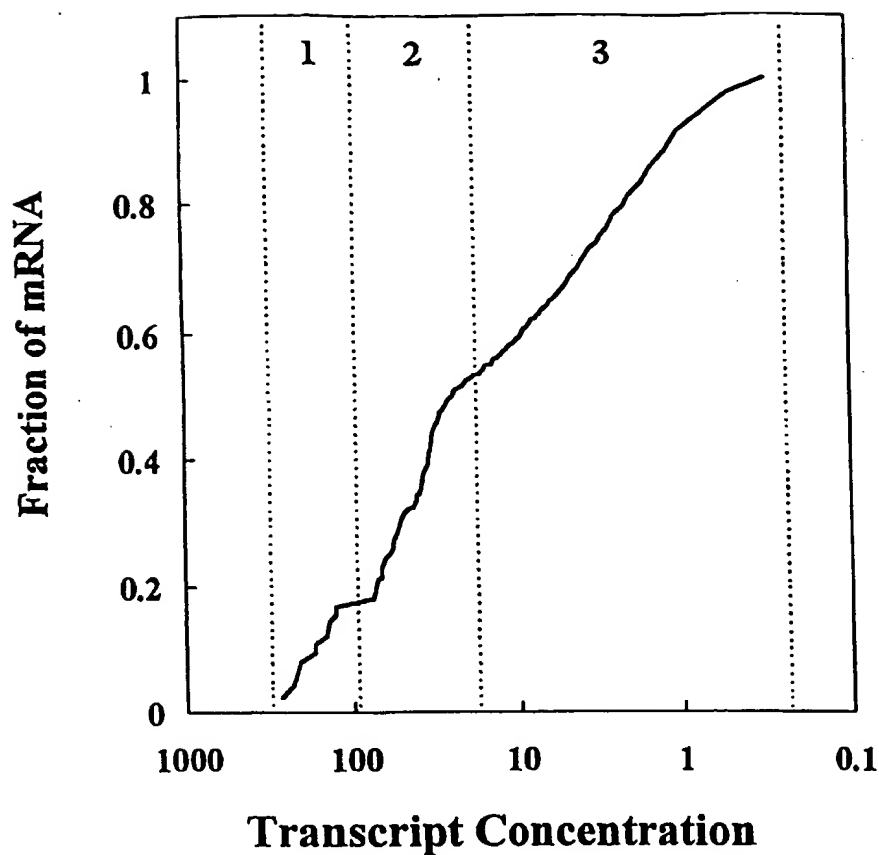
25 42. The probe of claim 21 which is immobilized on a solid support.



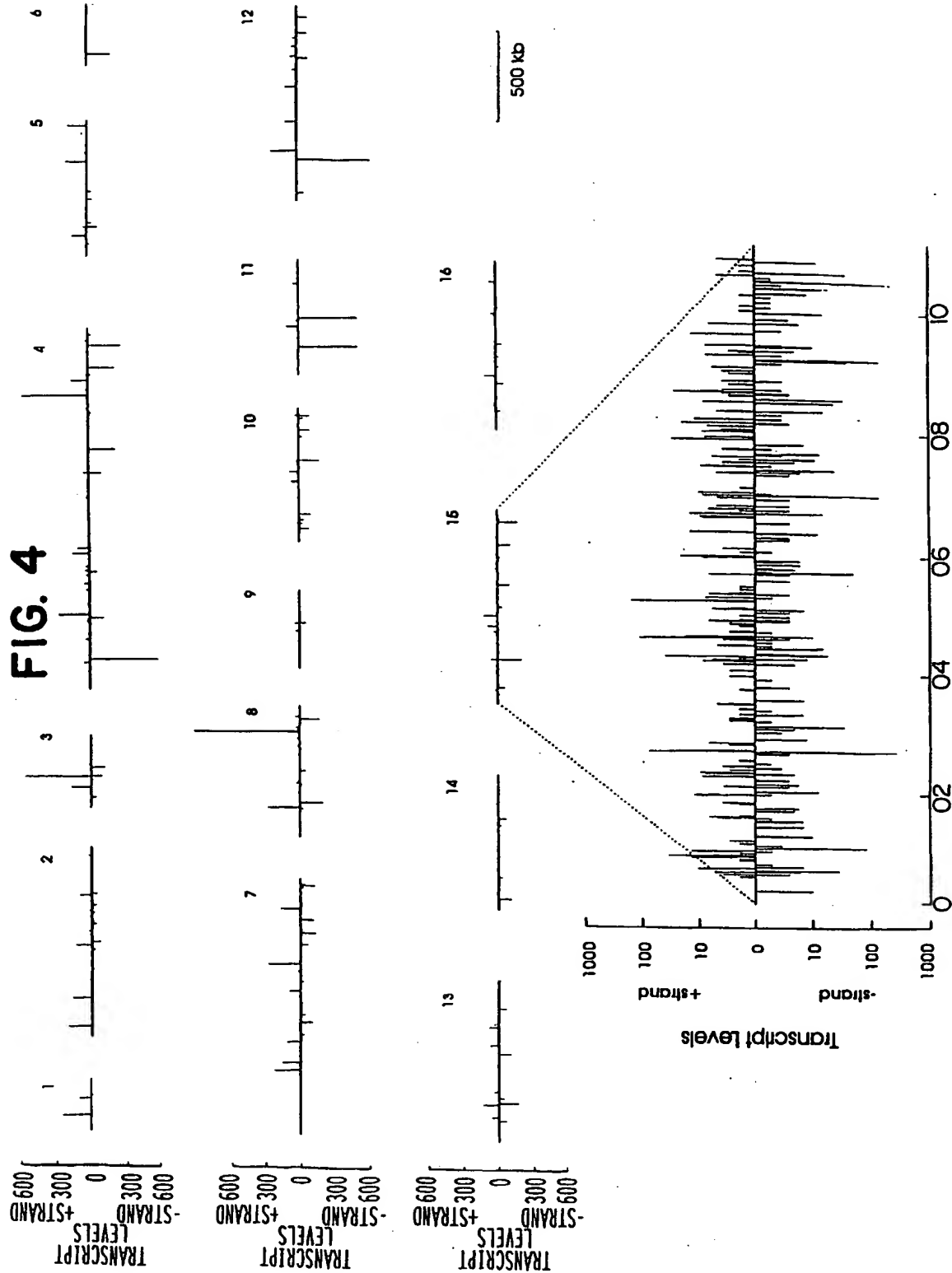
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3/5

**FIG. 3A****FIG. 3B**

| Component | Virtual Rot (SAGE) |             | Rot (Reassociation) |             |
|-----------|--------------------|-------------|---------------------|-------------|
|           | %mRNA              | Copies/cell | %mRNA               | Copies/cell |
| 1         | 17                 | 180         | 23                  | 200         |
| 2         | 38                 | 40          | 51                  | 30          |
| 3         | 45                 | 2.5         | 26                  | 1.5         |



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**FIG. 5**